Cottage Designs

with

CONSTRUCTIVE DETAILS

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CARPENTRY AND BUILDING SERIES NO. 1.

Cottage Designs with Constructive Details

BY VARIOUS ARCHITECTS.

A PRACTICAL BOOK FOR BUILDERS AND THOSE INTENDING TO BUILD.

A series of twenty-five designs of cottages, most of which have already been erected, ranging in cost from $600 to $1,500, together with the details of interior and exterior finish, all drawn to convenient scale, and accompanied by brief specifications.

DAVID WILLIAMS COMPANY,
14-16 PARK PLACE, NEW YORK.

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PREFACE.

The collection of designs of cottage and suburban residences presented within the covers of this volume has been carefully selected from different issues of CARPENTRY AND BUILDING and constitutes the first of a series of studies intended for the practical builder, who often finds it either necessary or desirable to act as his own architect in the erection of dwelling houses. The designs vary in cost from $600 to $1,500 and upward, representing the efforts of architects scattered over a wide section of country, thus affording a great variety of arrangement as regards the disposition of rooms and in the treatment of the exteriors. The figures of cost given apply to the sections in which the authors reside and the period when the buildings were designed, but it is obvious that the cost will vary with the locality and style of finish. The half-tone illustrations which accompany the designs are direct reproductions of photographs of the completed structures taken especially for the purpose.

A prominent feature of the designs and one which cannot fail to heartily commend itself to the attention of the practical builder, as well as to all having to do with the erection of dwellings, is the nature and completeness of the drawings presented. Not only are there to be found the customary elevations and floor plans characteristic of the average book of designs, but in addition there are numerous details of construction showing how the work is done, as well as the style of interior trim, all drawn to convenient scale. Brief specifications are given in connection with the designs, thus adding materially to their value from a practical point of view.

DESIGN NO. 1.

$600.

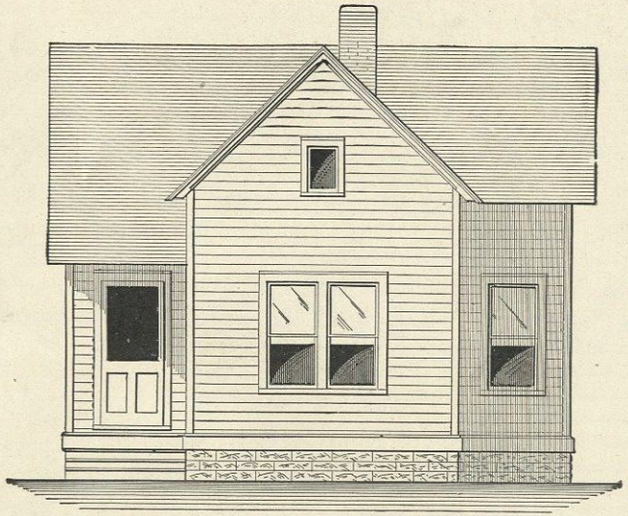
This cottage was erected for H. L. Bert, from drawings prepared by Laidlaw Brothers, architects, of Marion, Ind. The arrangement is such as to provide five rooms upon the main floor, two of the number being sleeping apartments. The central portion of the front of the house projects the depth of the parlor, back of which are the dining room and a sleeping room. The kitchen and a second sleeping room occupy the rear portion of the building. The architects' specifications state that all rough lumber is white pine, the girders being 6 x 6 inches; the sills, 2 x 6 inches; first-floor joist, 2 x 8 inches, spaced 16 inches on centers; attic joist, 2 x 6 inches, also spaced 16 inches on centers, and studding, 2 x 4 inches, doubled at all openings and angles. The rafters are 2 x 4 inches, spaced 20 inches on centers. The exterior of the house is covered with well seasoned 6-inch white pine bevel siding. The roof is sheeted and covered with white pine 16-inch shingles laid 4½ inches to the weather. All outside finish is either white pine or poplar, with corner boards 4 inches wide. The exterior wood work is painted two coats in addition to the priming coat.

The inside finish is basswood, well sandpapered, stained a dark cherry and completed with two coats of varnish. The floors throughout are white pine, well bridged. The plaster is three-coat work, and is carried to the floor in all cases. The pantry is fitted up with four 12-inch shelves, table and cupboard underneath. The house is piped for gas, and cost, complete, $600.

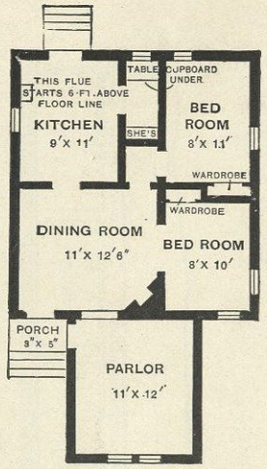
ARCHITECTS:

LAIDLAW BROTHERS,

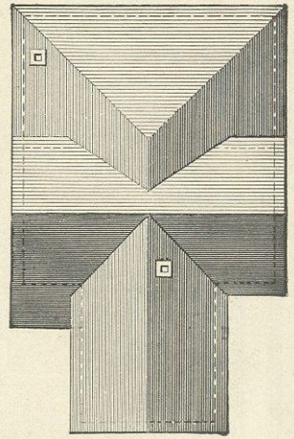
MARION, IND.



Front Elevation.—Scale, ⅛ Inch to the Foot.

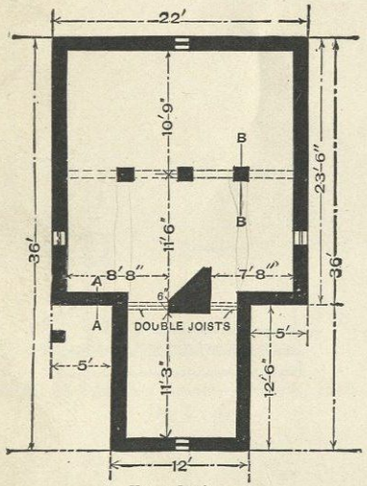


Main Floor.



Roof.

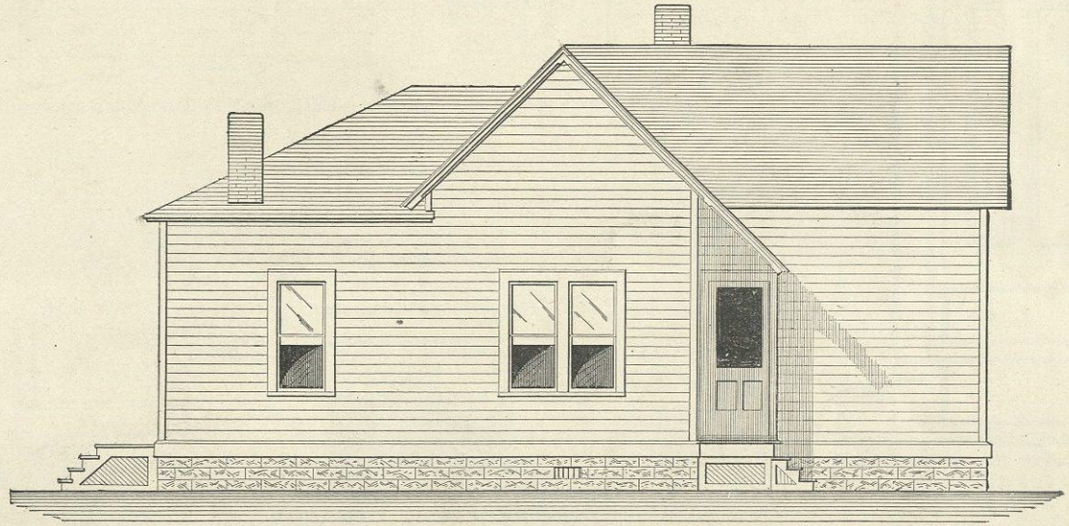
Scale, 1-16 Inch to the Foot.



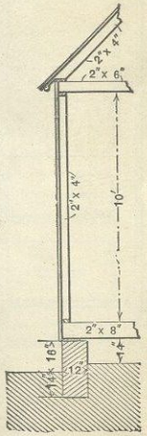
Foundation.

Scale, 1-16 Inch to the Foot.

DESIGN NO. 1.

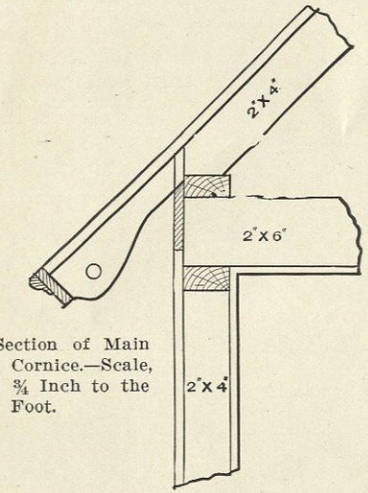


Side (Left) Elevation.—Scale, ⅛ Inch to the Foot.

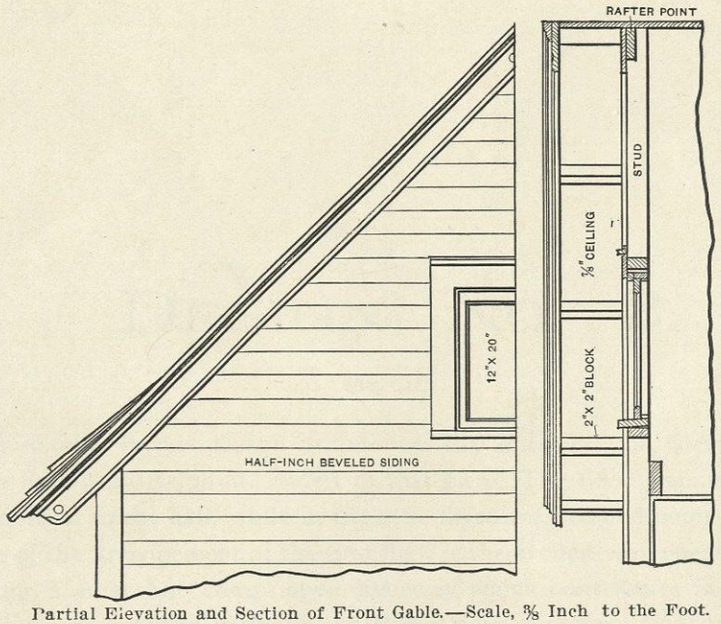


Section.—Scale, ⅛ Inch to the Foot.

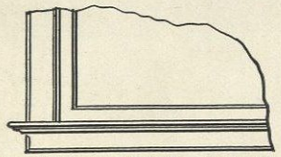
DESIGN NO. 1.



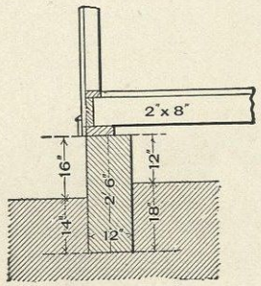
Section of Main Cornice.—Scale, ¾ Inch to the Foot.



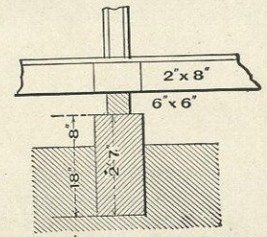
Partial Elevation and Section of Front Gable.—Scale, ⅜ Inch to the Foot.



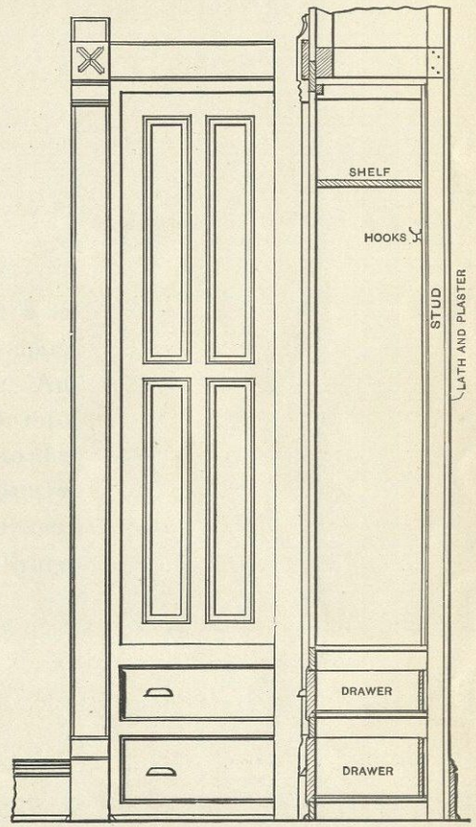
Detail of Window Stool.—Scale, ⅜ Inch to the Foot.



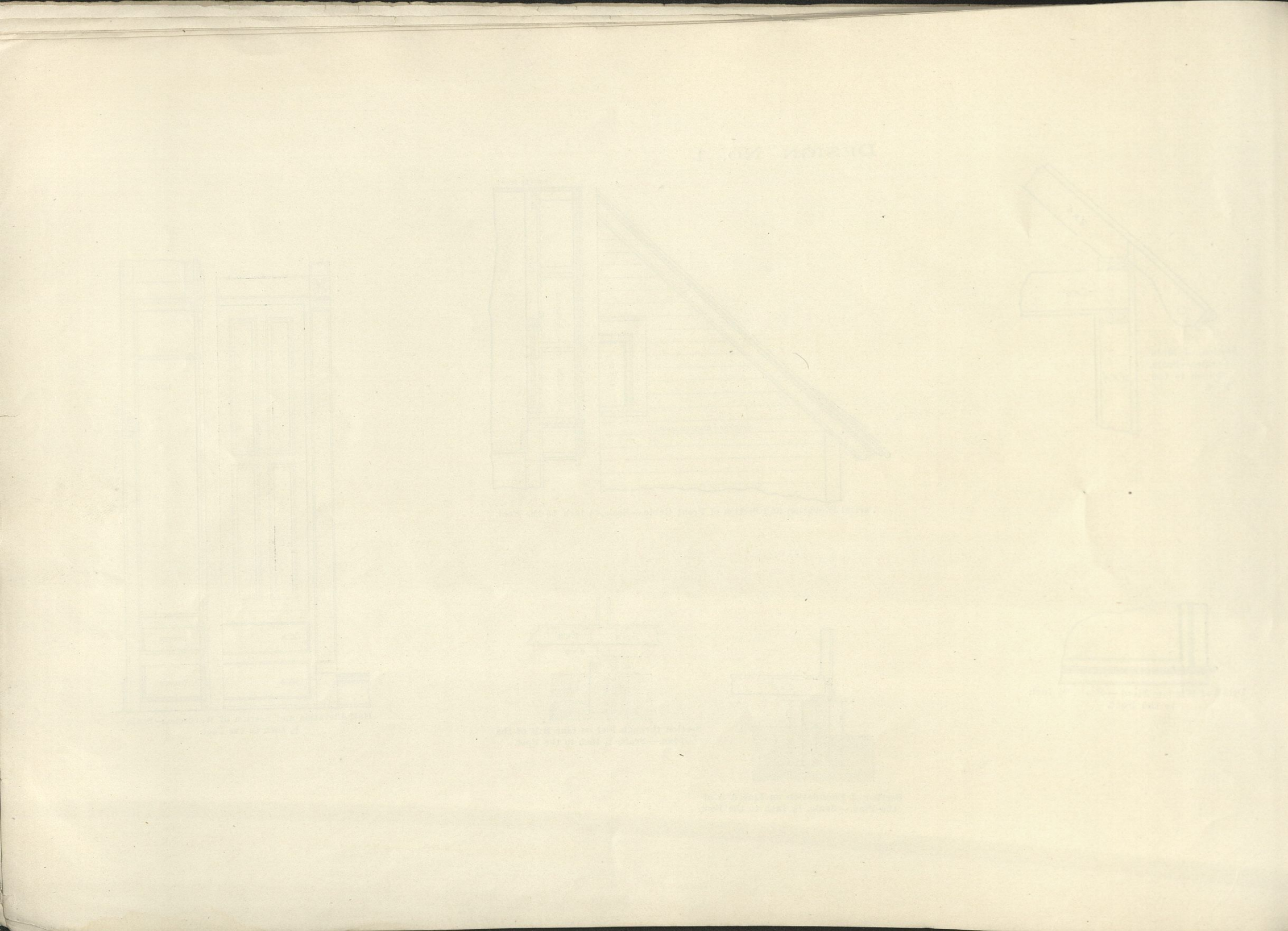
Section of Foundation on Line A A of the Plan.—Scale, ¼ Inch to the Foot.



Section through Pier on Line B B of the Plan.—Scale, ¼ Inch to the Foot.



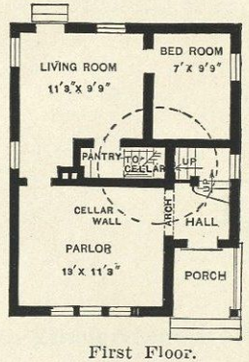
Half Elevation and Section of Wardrobe.—Scale ½ Inch to the Foot.



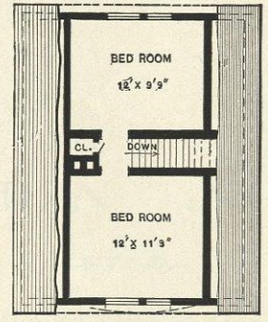
DESIGN NO. 2.

$600.

The house shown in this design stands on the outskirts of Cleveland, Ohio, and was erected from plans drawn by Ralph M. Hulett of that city. The floor plans show three rooms upon the first floor in addition to the hall, while in the attic there are two bedrooms of convenient size. An interesting feature of the arrangement of the first floor is the arched way opening from the parlor into the hall, displaying a neat but cheap open stairway which contributes in no small degree to the general effect. In the rear of the parlor is the living room, opening from which is a large pantry giving access to the cellar stairs. There is also opening from the living room a small bedroom. All the rooms in the house are plastered. The cost of the cottage was $600, but this figure will vary to some extent with the locality and style of finish.



First Floor.



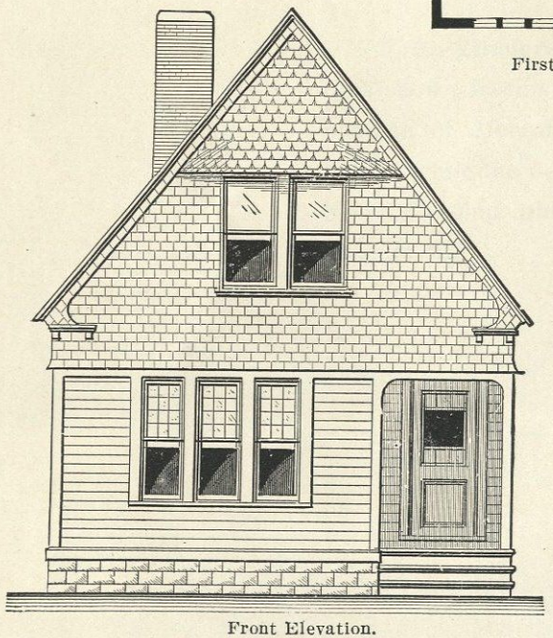
Attic Plan.

Scale, 1-16 Inch to the Foot.

ARCHITECT:

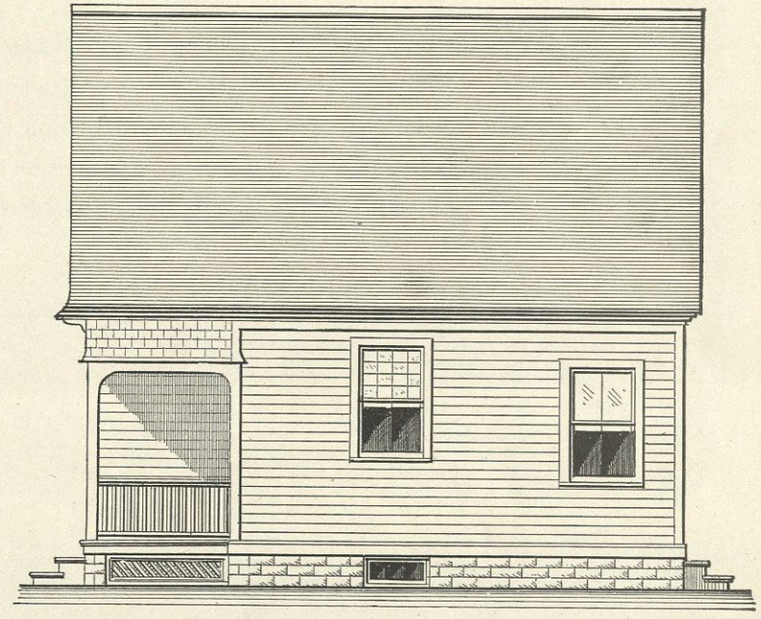
RALPH M. HULETT,

CLEVELAND, OHIO.



Front Elevation.

DESIGN NO. 2.



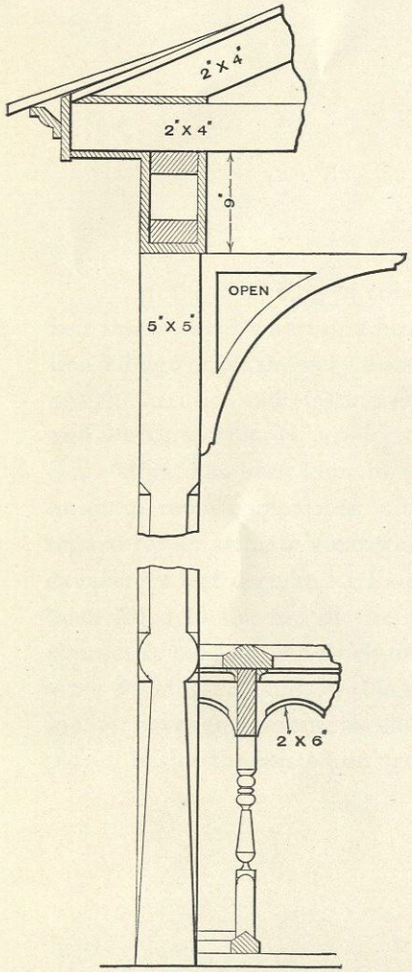
Side (Right) Elevation.

Scale of Elevations, ⅛ Inch to the Foot.

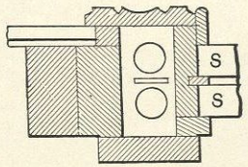
DESIGN NO. 3.

$750.

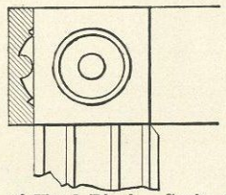
An arrangement which will appeal to those who favor a sleeping room on the main floor is that shown in this design. The cottage was erected in the South from plans drawn by J. S. Zimmerman of Morganton, N. C., the net cost being $750. The floor plan shows the arrangement of rooms, while the details indicate the constructive features. The material employed throughout is North Carolina pine, with casings, base, head and plinth blocks as shown by the details. The finish is in oil.



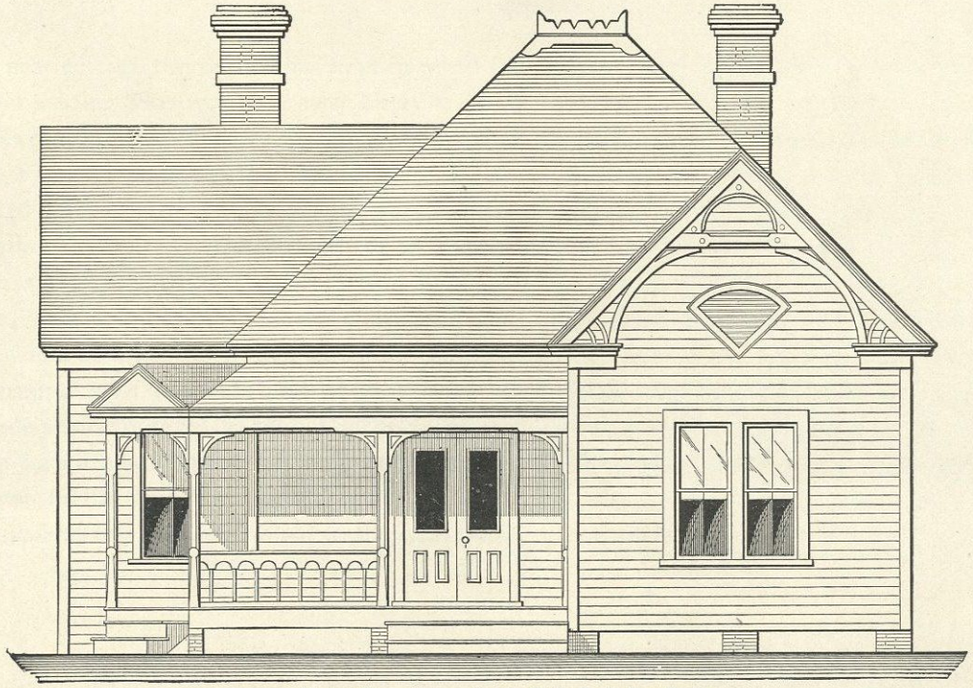
Detail of Front Porch.—Scale, ¾ Inch to the Foot.



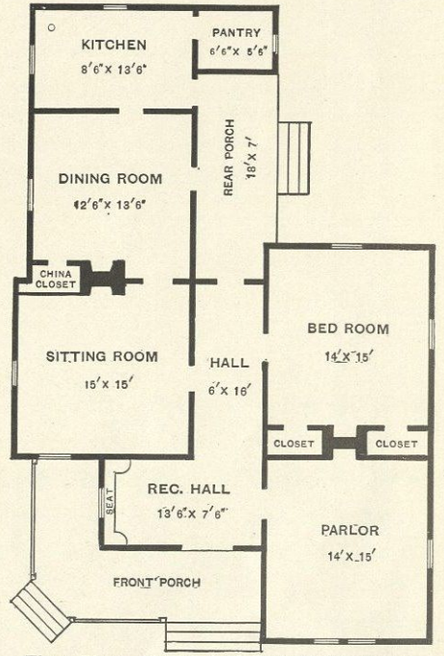
Section through Window Frame.—Scale, 1½ Inches to the Foot.



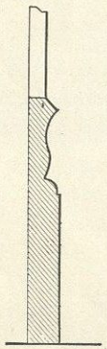
Detail of Head Block.—Scale, 1½ Inches to the Foot.



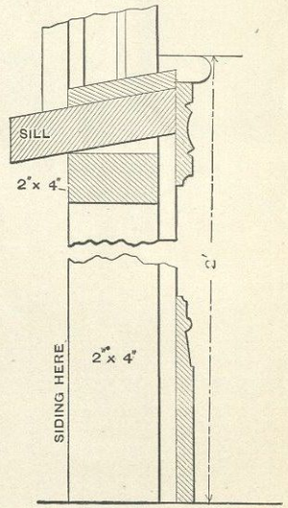
Front Elevation.—Scale, ⅛ Inch to the Foot.



Floor Plan.—Scale, 1-16 Inch to the Foot.



Detail of Plinth.—Scale, 1½ Inches to the Foot.



Section through Base, also through Window Sill, Showing Apron and Stool.—Scale, 1½ Inches to the Foot.

DESIGN NO. 3.

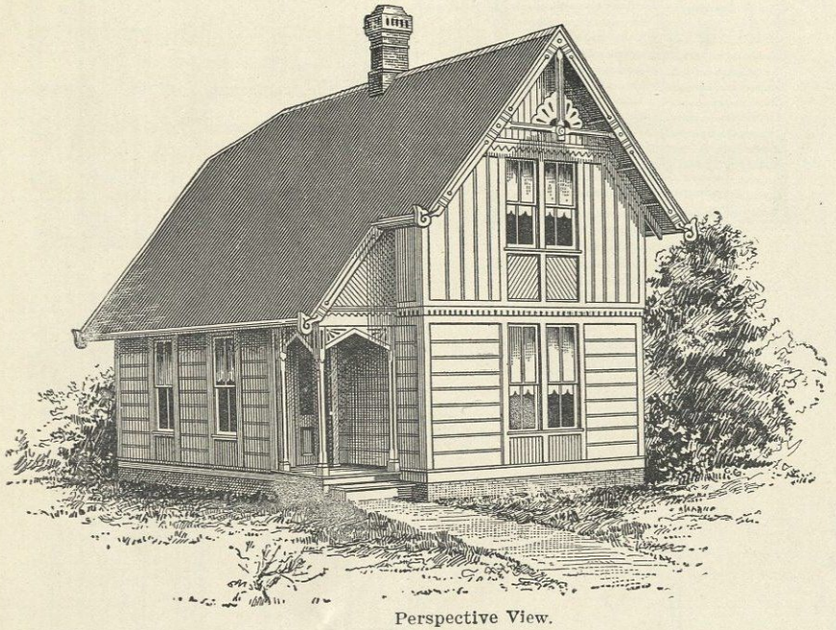
DESIGN NO. 4.

$800.

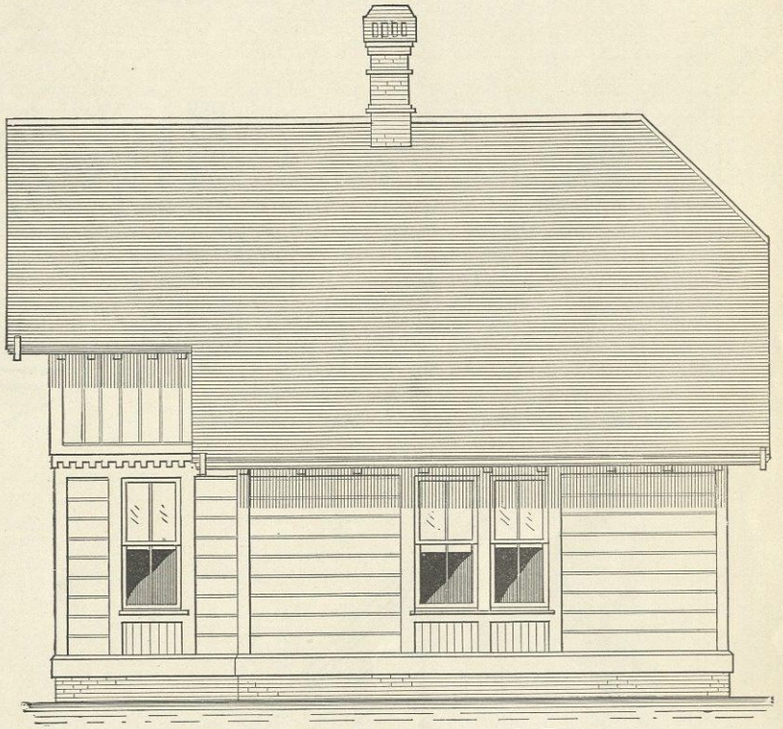
In the designing of this neat cottage the author has kept in mind the fact that a client wanting a house costing $800 would be very likely to build in a village or on the very outskirts of a city. He has therefore to do without the luxuries and elegancies of those who are able to spend a larger sum, and who, accordingly, are located where there are gas works, water works, &c. What has been kept in mind, therefore, is the attainment of a maximum of room compatible with safety, health and comfort, and a proper regard for an attractive exterior. The foundation has been obtained by excavating 2 feet deep and 1 foot wide, making the trench smooth. This has been filled to the top of the ground with concrete and finished with six courses of hard burned brick made perfectly level on top. On this is bedded a 2 x 8 wall plate, and on this in turn are laid the first-floor joists, placed 16 inches between centers, as shown in the foundation plan. Side studs are placed beside the joists and are spiked fast and toe nailed to the wall plate. The lower story of the building is weather boarded, using 1-inch lumber tongued and grooved together and nailed with tenpenny nails. As to the arrangement of rooms, the small kitchen, abounding in closets, is isolated as much as possible from the other rooms of the house, thus making it a pleasanter home than would otherwise be the case. The door in the dining room leading to the closet under the stairs is a means of saving many steps to the housewife. This may be used as a serving closet from the kitchen. The food prepared or the dishes to be washed may be passed through it to and from the kitchen. The dining room and sitting room are of liberal size and each of them is well lighted. The stairs are wide and easy and the sleeping rooms are commodious and provided with closets. The chimney, which starts in two parts at the bottom, ends in a single stack at the top. The architect is George W. Payne of Carthage, Ill., and the cost $800.

DESIGN NO. 4.

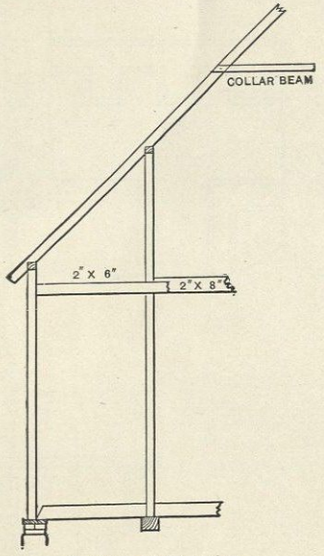
ARCHITECT:
G. W. PAYNE,
CARTHAGE, ILL.



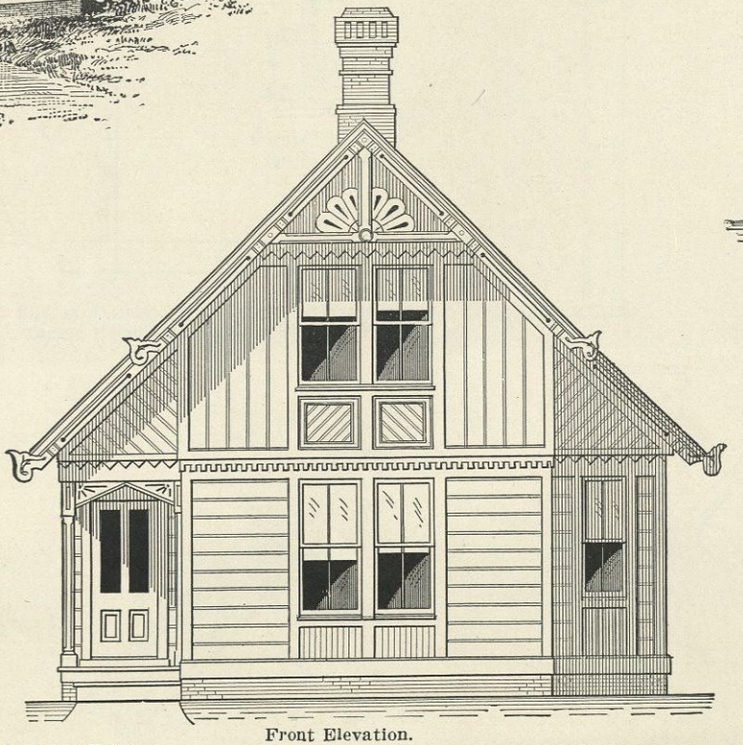
Perspective View.



Right Elevation.—Scale, ⅛ Inch to the Foot.

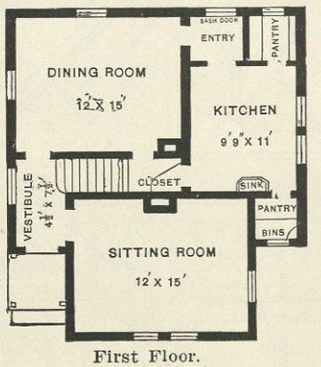


Section of Framing.

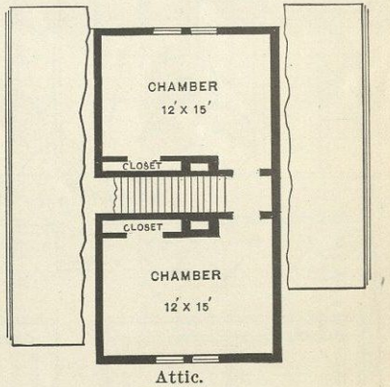


Front Elevation.

Scale, ⅛ Inch to the Foot.

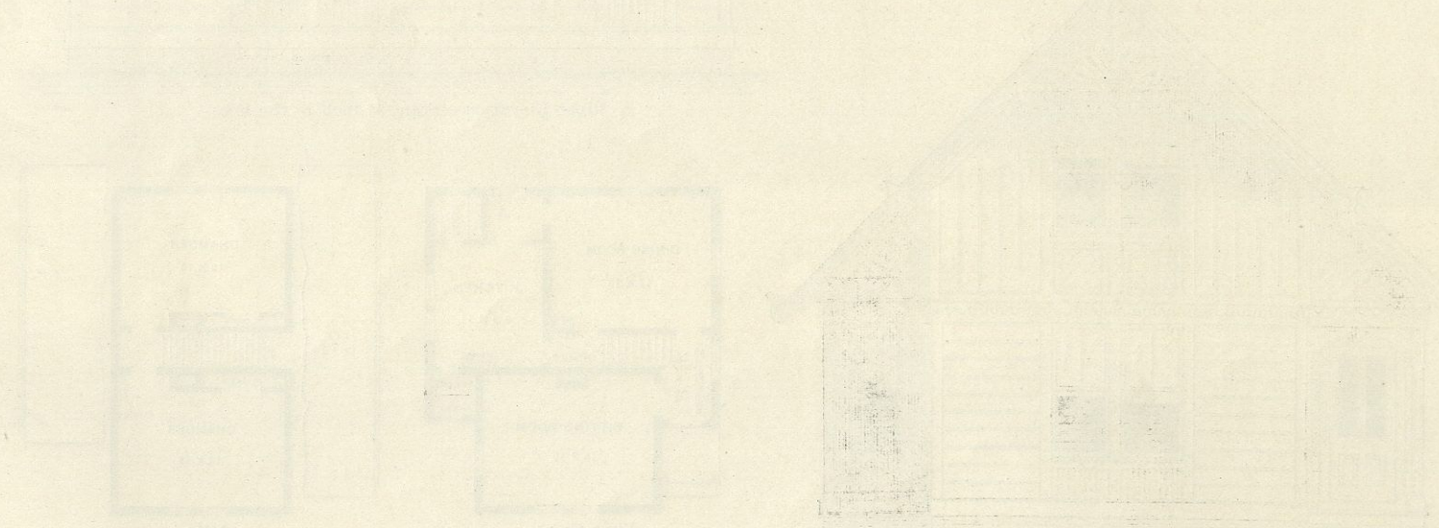


First Floor.

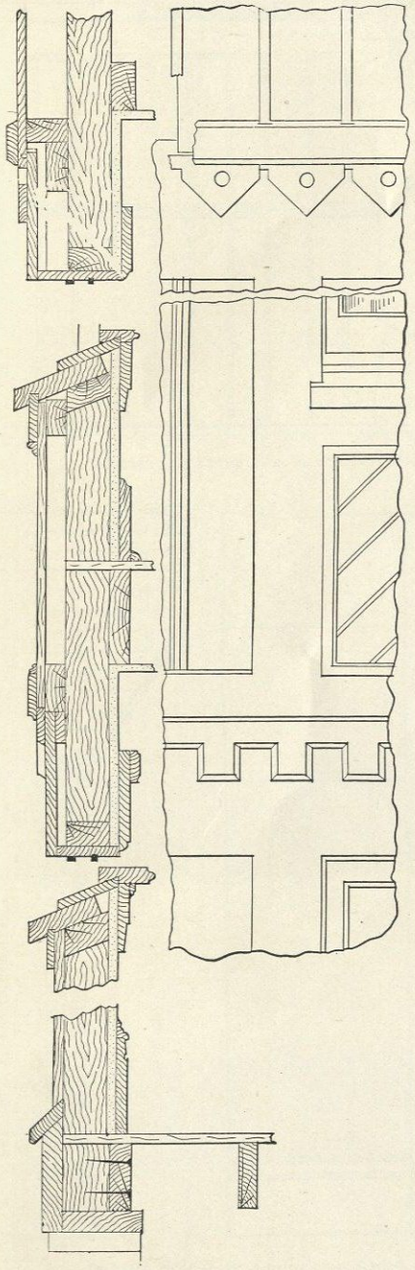


Attic.

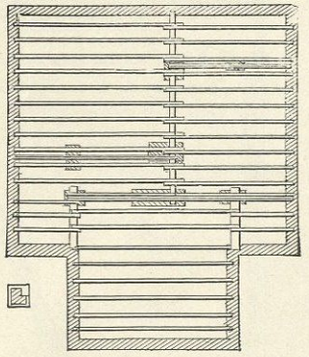
Scale, 1-16 Inch to the Foot.



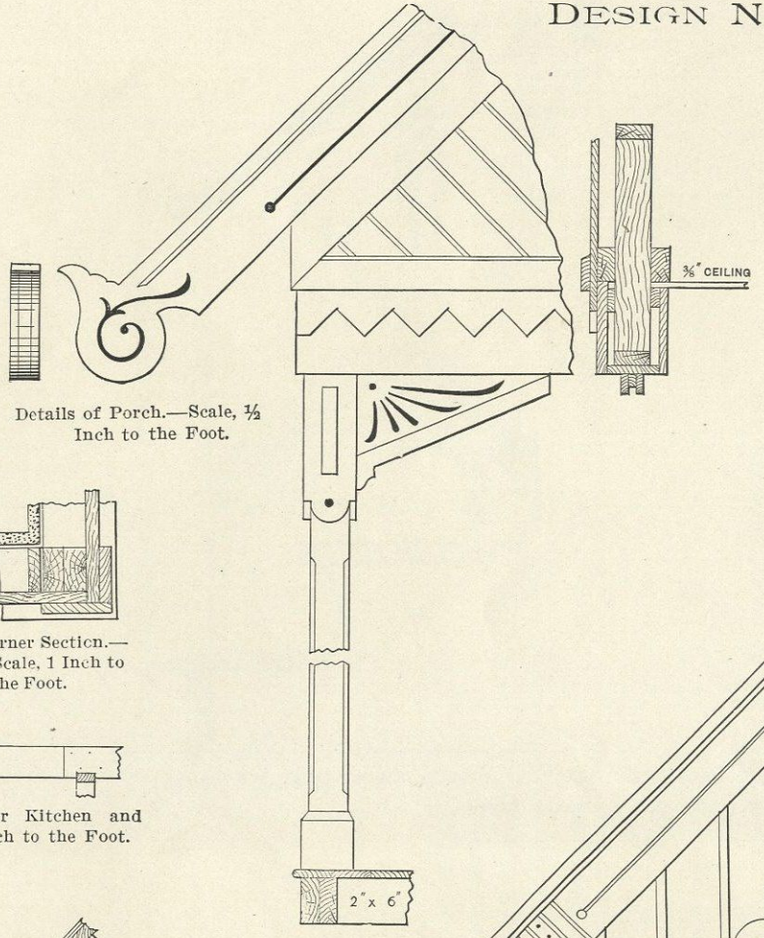
DESIGN NO. 4.



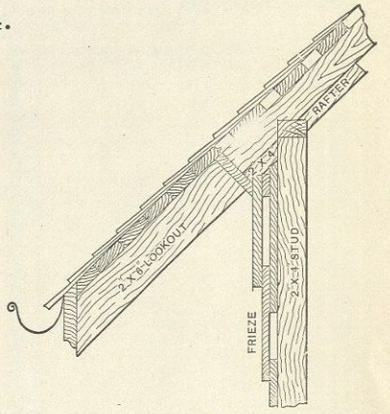
Vertical Section through Front Gable.—Scale, ¾ Inch to the Foot.



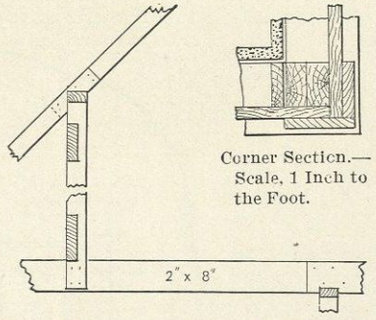
Foundation Plan.—Scale, 1-16 Inch to the Foot.



Details of Porch.—Scale, ½ Inch to the Foot.

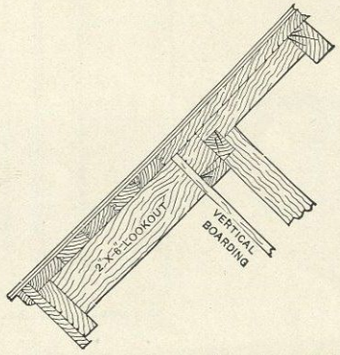


Vertical Section through Cornice.—Scale, ½ Inch to the Foot.

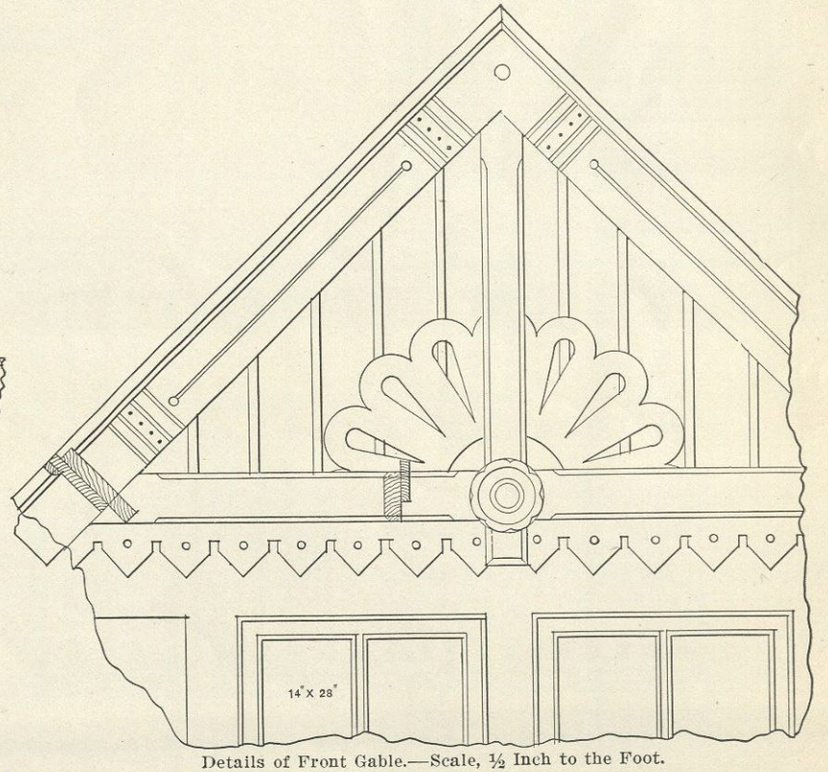


Section through Truss Over Kitchen and Dining Room.—Scale, ¼ Inch to the Foot.

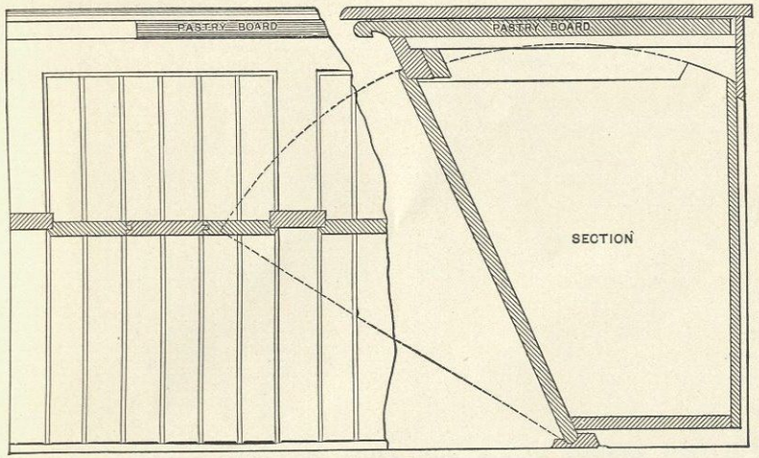
Corner Section.—Scale, 1 Inch to the Foot.



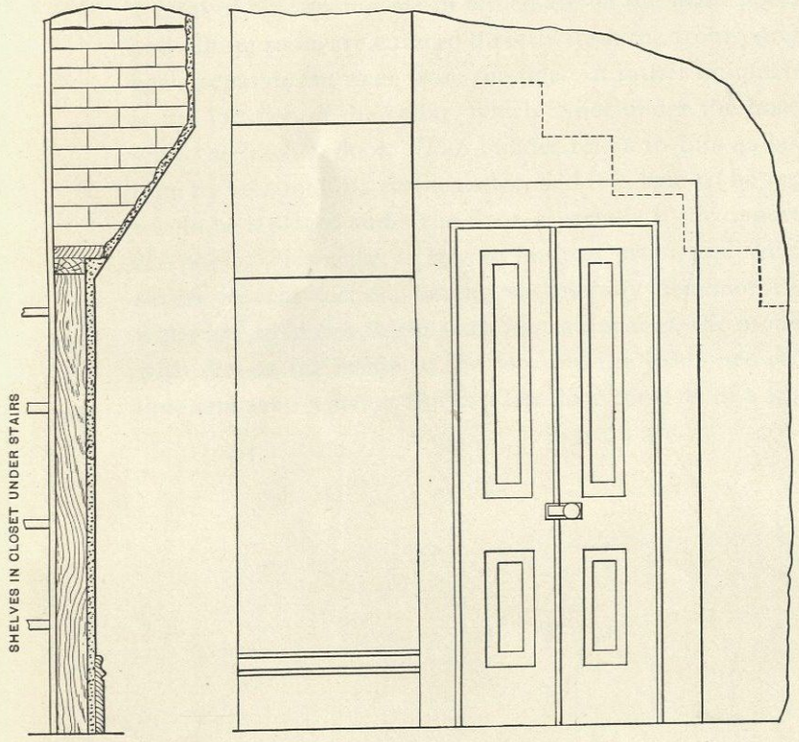
Section through Raking Cornice.—Scale, ½ Inch to the Foot.



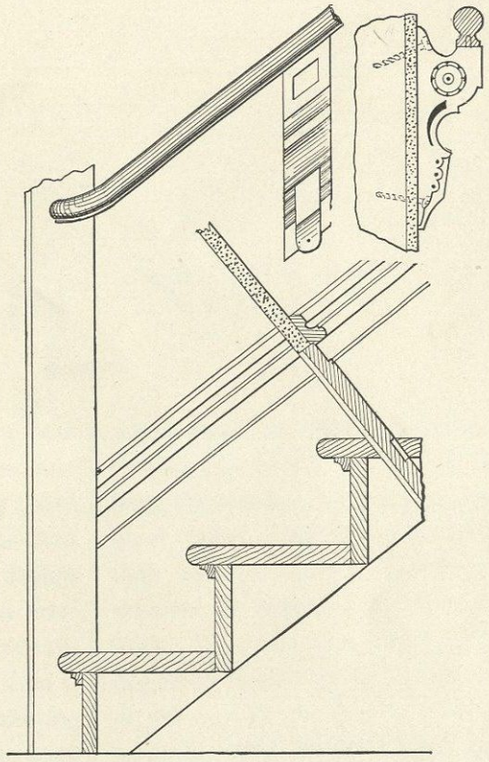
Details of Front Gable.—Scale, ½ Inch to the Foot.



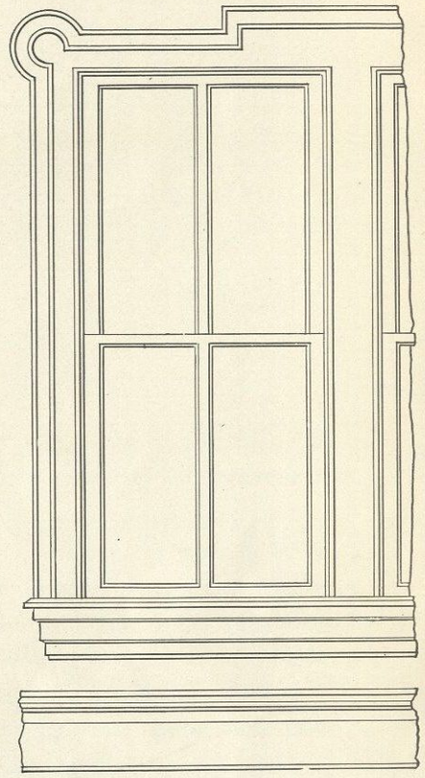
Details of Flour Bin in Pantry.—Scale, 1 Inch to the Foot.



Details of Closet Under the Stairs.—Scale, ½ Inch to the Foot.

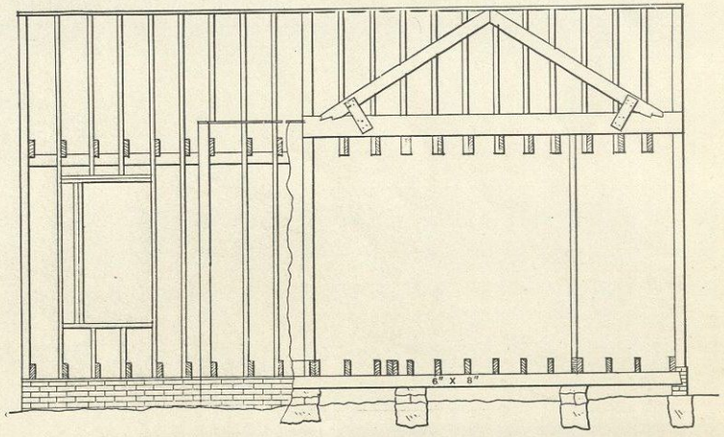


Stairs and Hand Rail.—Scale, 1 Inch to the Foot.



Interior Finish of Sitting Room.—Scale, ½ Inch to the Foot.

DESIGN NO. 4.



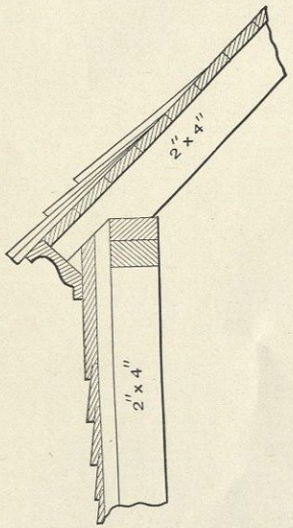
Timber Elevation and Section through Kitchen, Showing Truss.—Scale, ⅛ Inch to the Foot.

Design No. 5.

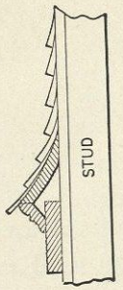
$900.

The neat story and a half cottage presented in this design was erected by A. E. Green of Cleveland, Minn., for his own use, and contains a total of nine rooms, six of which are on the main floor. The sitting room and dining room are entered directly from the front porch, while the kitchen has a separate entrance from the side. A rather unique feature of the design is the location of the cellar, which is not under the house, but is on a level with the kitchen floor. The builder refers to this as being of great advantage by reason of its convenience, and it is said to be more healthful than it would be if placed under the floor, especially if the opportunities for draining are poor. This cellar is said to be frost proof, last winter, which was very severe in that section, having successfully demonstrated this point. The walls are 18 inches thick, with four air spaces, the stone wall being banked with dirt on the inside to the top, and the joists are grouted between with lime and sand 3 inches thick. The floor consists of a layer of rough boards, then a layer of brick in cement, which, in turn, is covered with a layer of cement and fine gravel 1 inch thick. The house occupies a double lot and faces the south. It is finished inside with oak, filled and varnished with three good coats. The sitting and dining rooms face the street, rendering them light and pleasant. The sleeping rooms, the author states, are easily warmed in winter from the stoves in the principal rooms on the main floor. The pantry is fitted with drawers and flour bin, the drawers working from both the dining room and pantry side. The kitchen, which is at the end of the house, is provided with hard and soft water, the well being located about 4 feet outside the wall and having a pipe running under the foundation wall and up to the sink. There is a 35-barrel cistern under the kitchen floor, and from it rain water can be readily pumped at the sink. Nine hundred dollars is said to have been the total cost of the cottage.

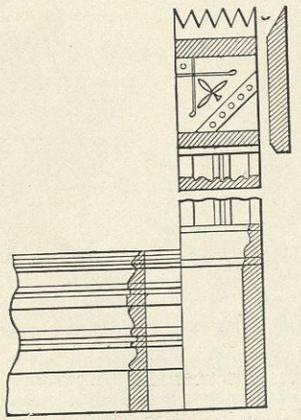
DESIGN NO. 5.



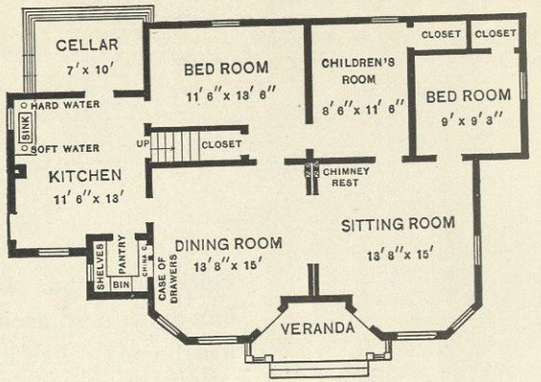
Detail of Main Cornice.—Scale, ¾ Inch to the Foot.



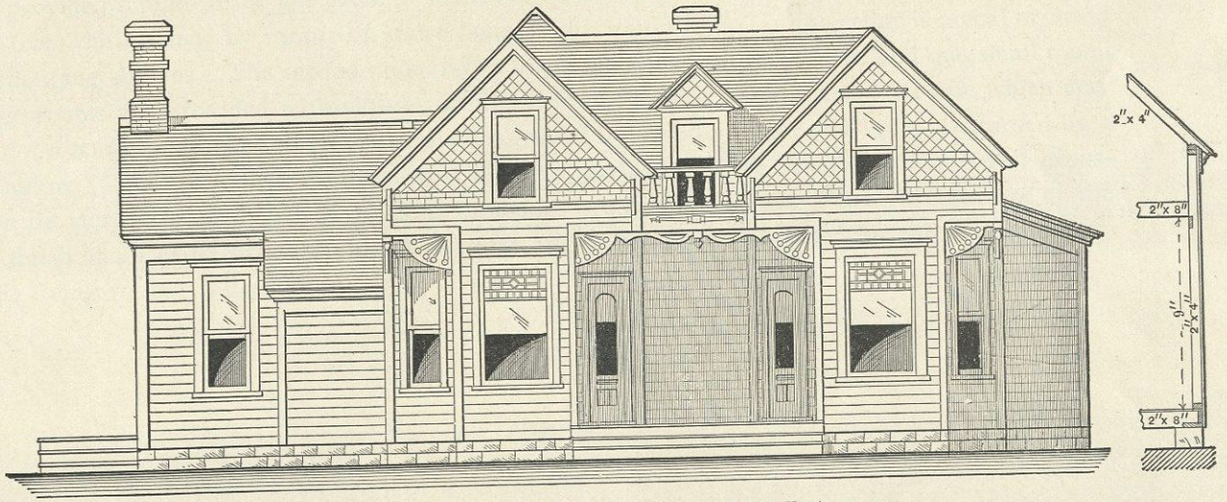
Detail of Belt Course in Front Gable.—Scale, ¾ Inch to the Foot.



Details of Inside Finish.—Scale, 1 Inch to the Foot.

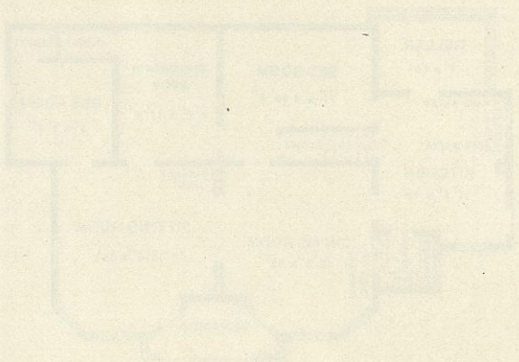


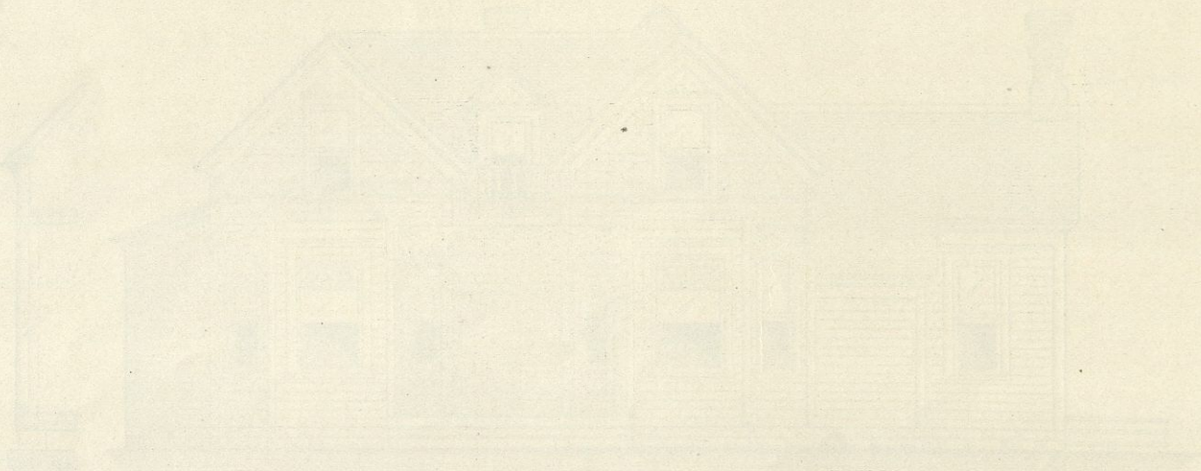
Main Floor Plan.—Scale, 1-16 Inch to the Foot.



Front Elevation and Section.—Scale, ⅛ Inch to the Foot.

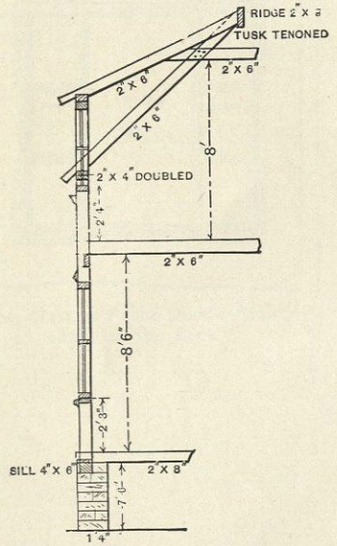
ARCHITECT
AND BUILDER:
A. E. GREEN,
CLEVELAND, MINN.



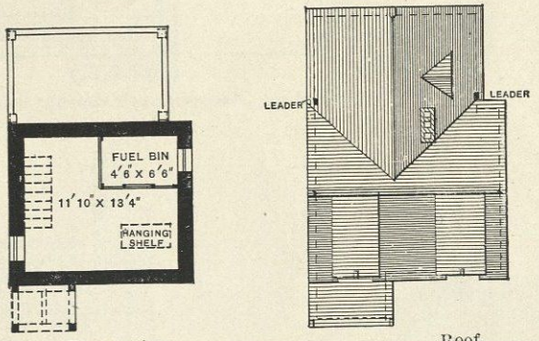


Design No. 6.

This cottage has been designed for a small family who do their own work and no provision has, therefore, been made for a servant. The entrance to the house is protected both by a porch and a vestibule, the latter provision being designed for the purpose of dispensing with a hall. The kitchen is provided with a portable range, a dresser, a two-part stationary tub with all appliances and a commodious pantry. In this case the kitchen will necessarily be employed for dining purposes. A feature of the design is the stairway, which, it will be noticed, is built out into the living room. In this room is provided a plain brick fire place in which either coal or wood may be burned. The cellar is reached from the kitchen by means of stairs beneath the main flight. In the cellar is a coal or wood bin and hanging shelves. The second floor of the house is divided into two large and one small room. The large rooms are provided with closets, while off from the rear room is a smaller one which may be used for a trunk or storage closet. Entrance is gained by a sliding door and light is afforded by a small window. The house faces slightly west of south, giving the best chamber a southwest exposure. On the northerly and westerly sides of the house are outside blinds. The only feature of the interior finish at all expensive is the main stairway, which has been elaborated for the sake of beautifying the living room. The architect is C. Powell Karr of New York City.

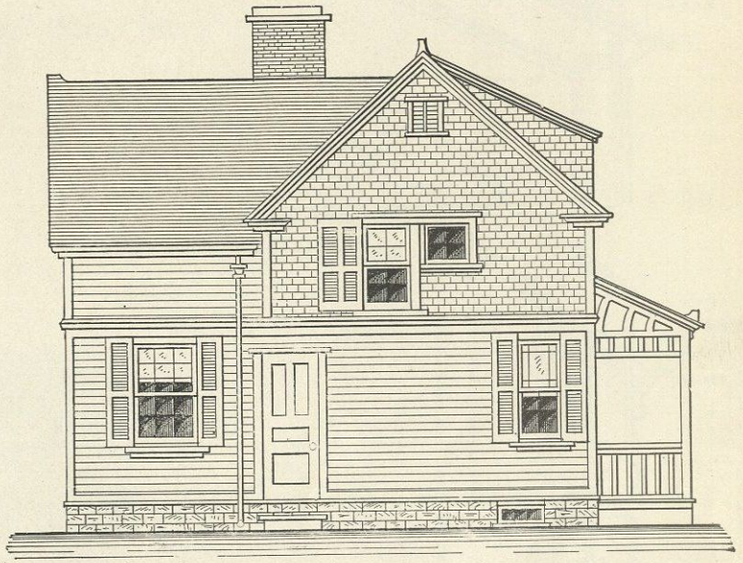


Section.—Scale, ⅛ Inch to the Foot.

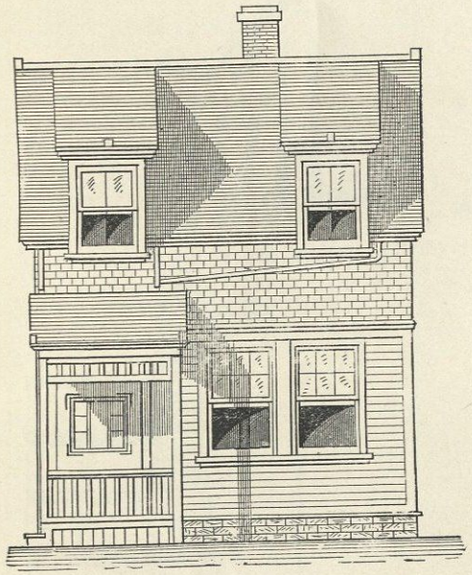


Foundation. Roof.

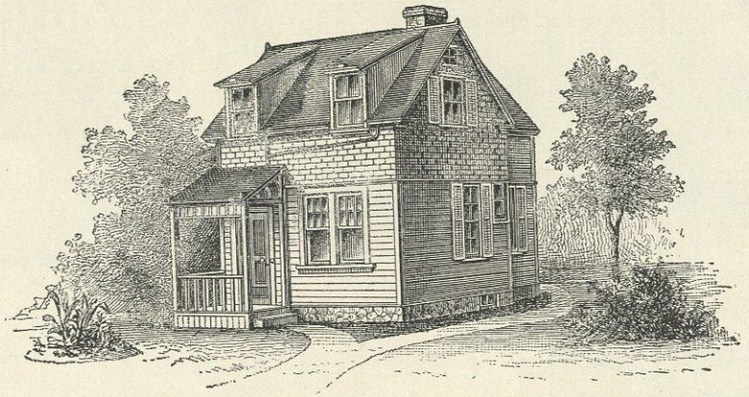
Scale, 1-16 Inch to the Foot.



Side (Left) Elevation.—Scale, ⅛ Inch to the Foot.



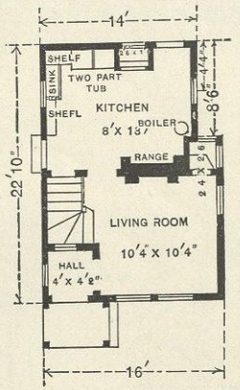
Front Elevation.—Scale, ⅛ Inch to the Foot.



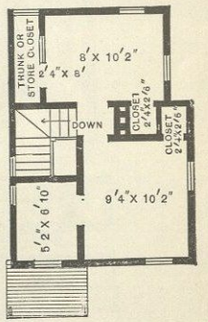
Perspective View.

DESIGN NO. 6.

ARCHITECT:
C. POWELL KARR,
NEW YORK.



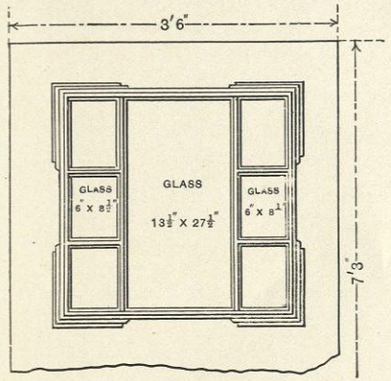
First Floor.



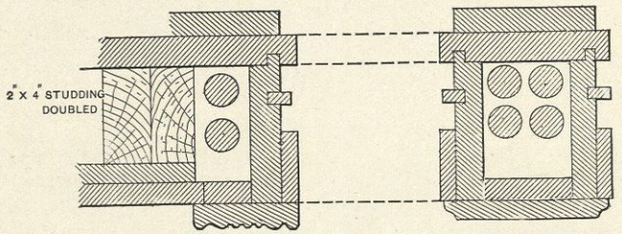
Second Floor.

Scale, 1-16 Inch to the Foot.

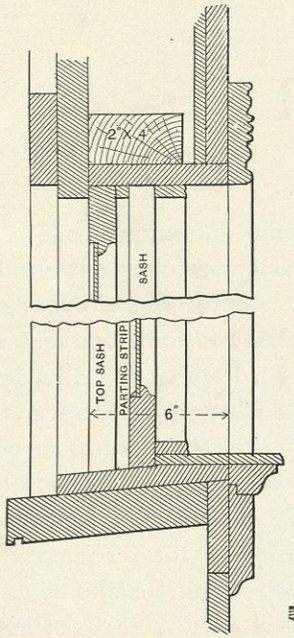
DESIGN NO. 6



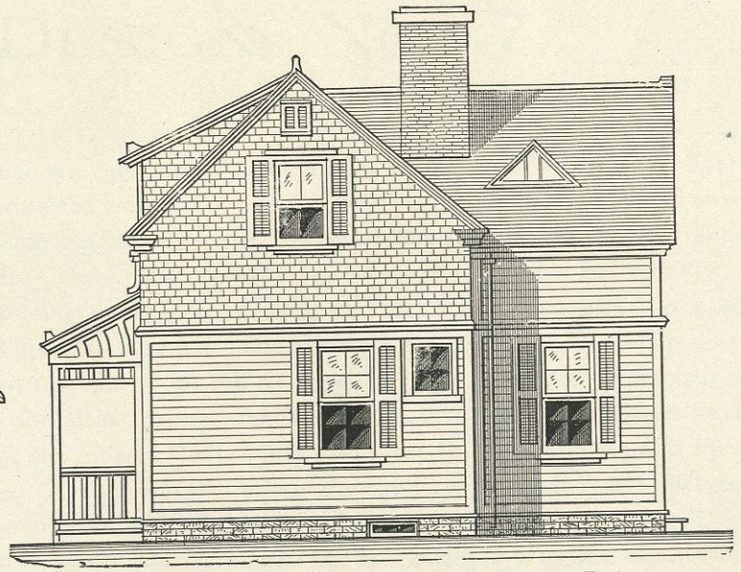
Upper Half of Front Door.—Scale, ½ Inch to the Foot.



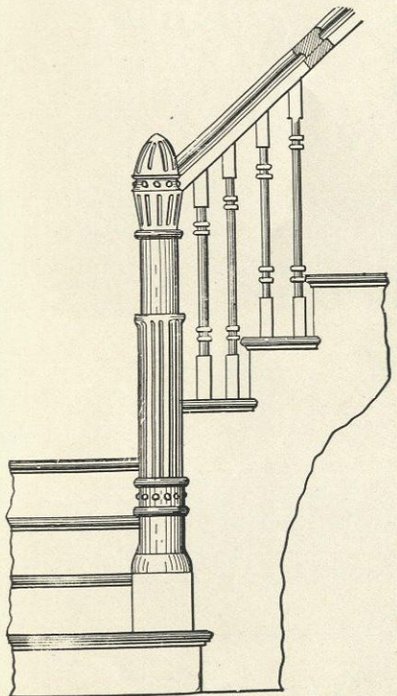
Section through Window Frame.—Scale, 1½ Inches to the Foot.



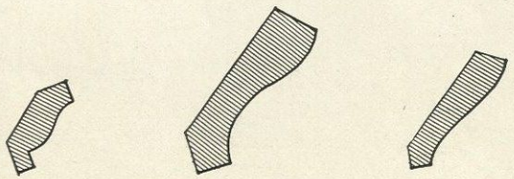
Detail of Window Section.—Scale, 1½ Inches to the Foot.



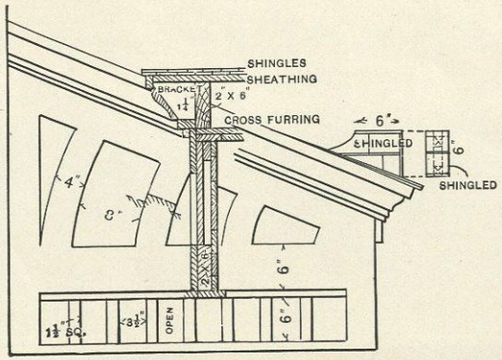
Side (Right) Elevation.—Scale, ⅛ Inch to the Foot.



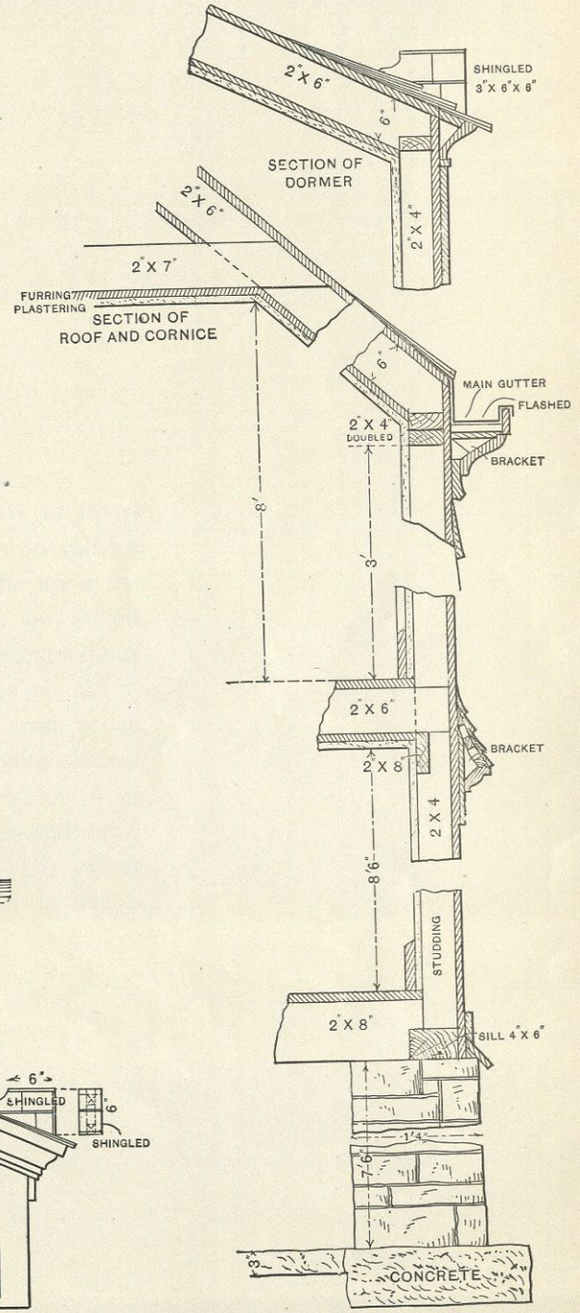
Detail of Main Stairs.—Scale, ½ Inch to the Foot.



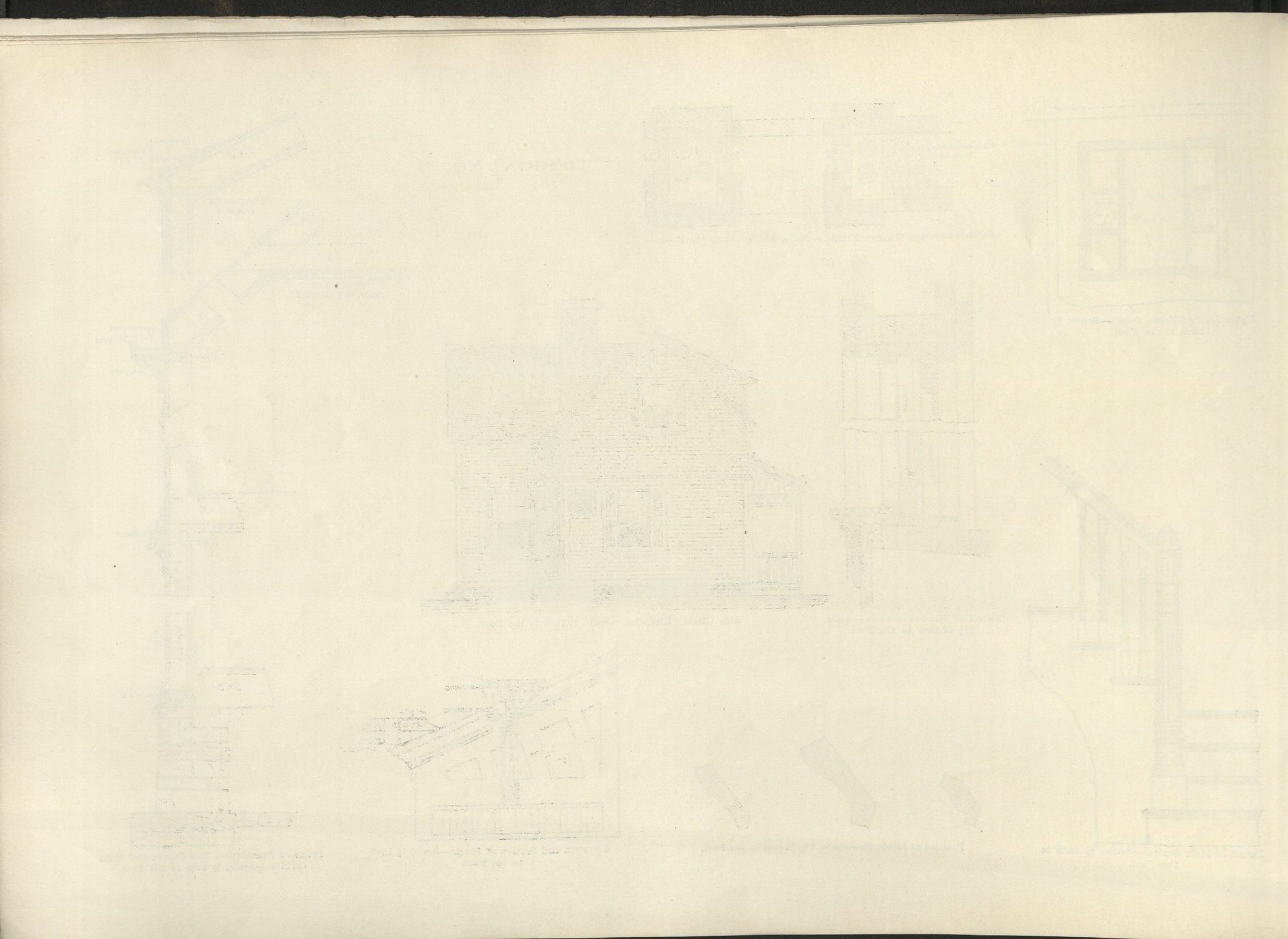
Profiles of Moldings.—Scale, 1½ Inches to the Foot.



Elevation and Section of Porch.—Scale, ½ Inch to the Foot.



Detail of Foundation, Belt Course and Main Cornice.—Scale, ½ Inch to the Foot.

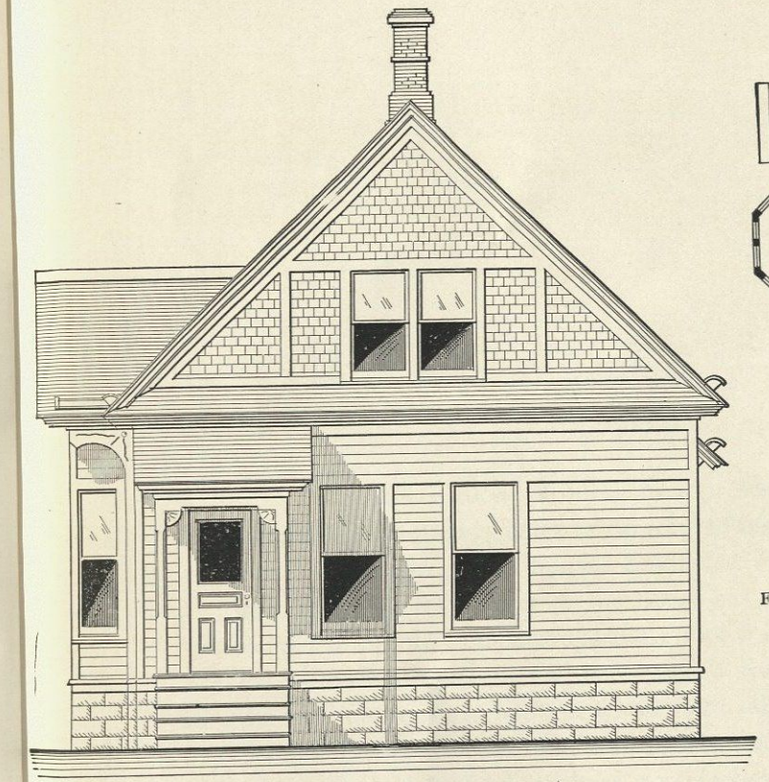


Design No. 7.

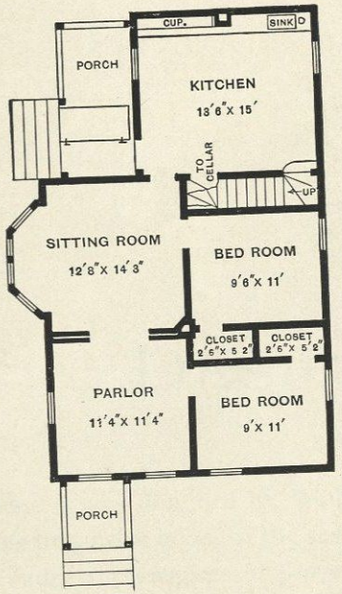
$1,000.

The illustrations which are given represent a neat frame cottage which is likely to interest those who are contemplating the erection of buildings of this general class. The drawings call for a story and a half cottage, having parlor, sitting room, kitchen and two sleeping rooms upon the main floor and a finished attic. The sitting room, it will be observed, has a bay window, and is connected with the parlor by folding doors. Each sleeping room has opening from it a commodious closet, a feature likely to be appreciated by all. The arrangement of the rooms is such that one chamber opens from the parlor and the other from the sitting room. In the rear is the kitchen, from which ascend the stairs leading to the attic. Along one side of the kitchen is a cupboard having shelves inclosed by panel doors above the counter shelf, while below are drawers, shelves and meal and flour bins, arranged to tilt forward. At the right of these is the sink, beneath which are shelves and panel doors. A cellar is under the kitchen. The studs are 2 x 4 inches and 12 feet in length. The author of the design, O. I. Fitz, Rock Island, Ill., states that the house will cost in that locality in the neighborhood of $1,000, depending on style of finish.

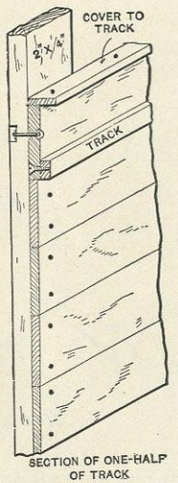
DESIGN NO. 7.



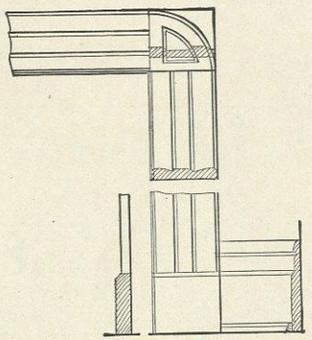
Front Elevation.—Scale. ⅛ Inch to the Foot.



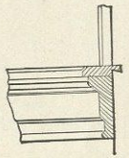
Floor Plan.—Scale, 1-16 Inch to the Foot.



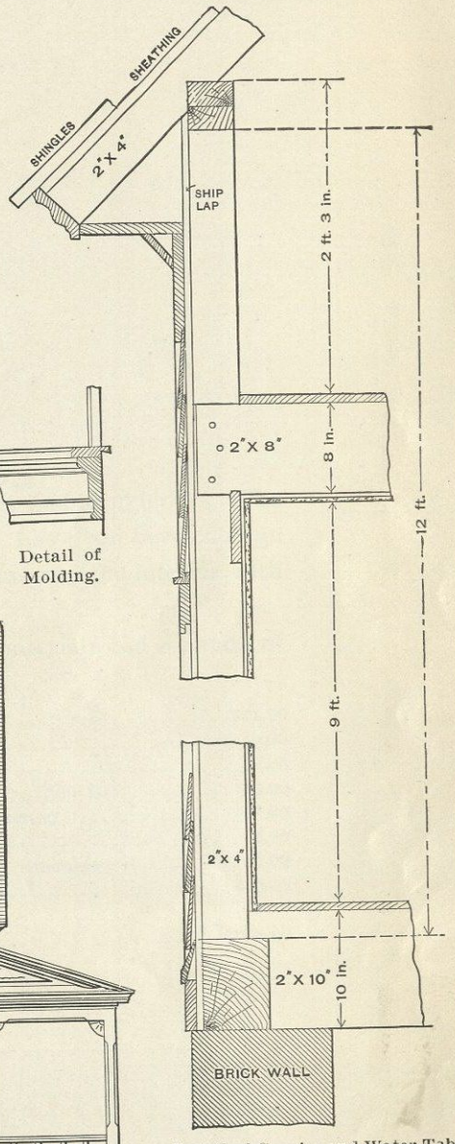
Showing Method of Putting up Sliding Door Track.



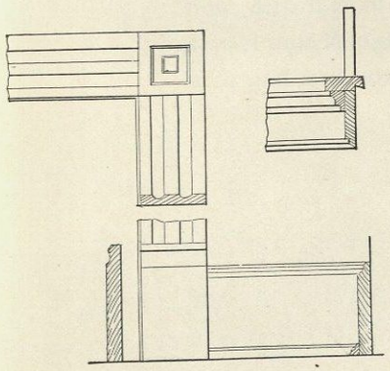
Details of Main Trim.—Scale, ¾ Inch to the Foot.



Detail of Molding.



Detail of Cornice and Water Table —Scale, ¾ Inch to the Foot.

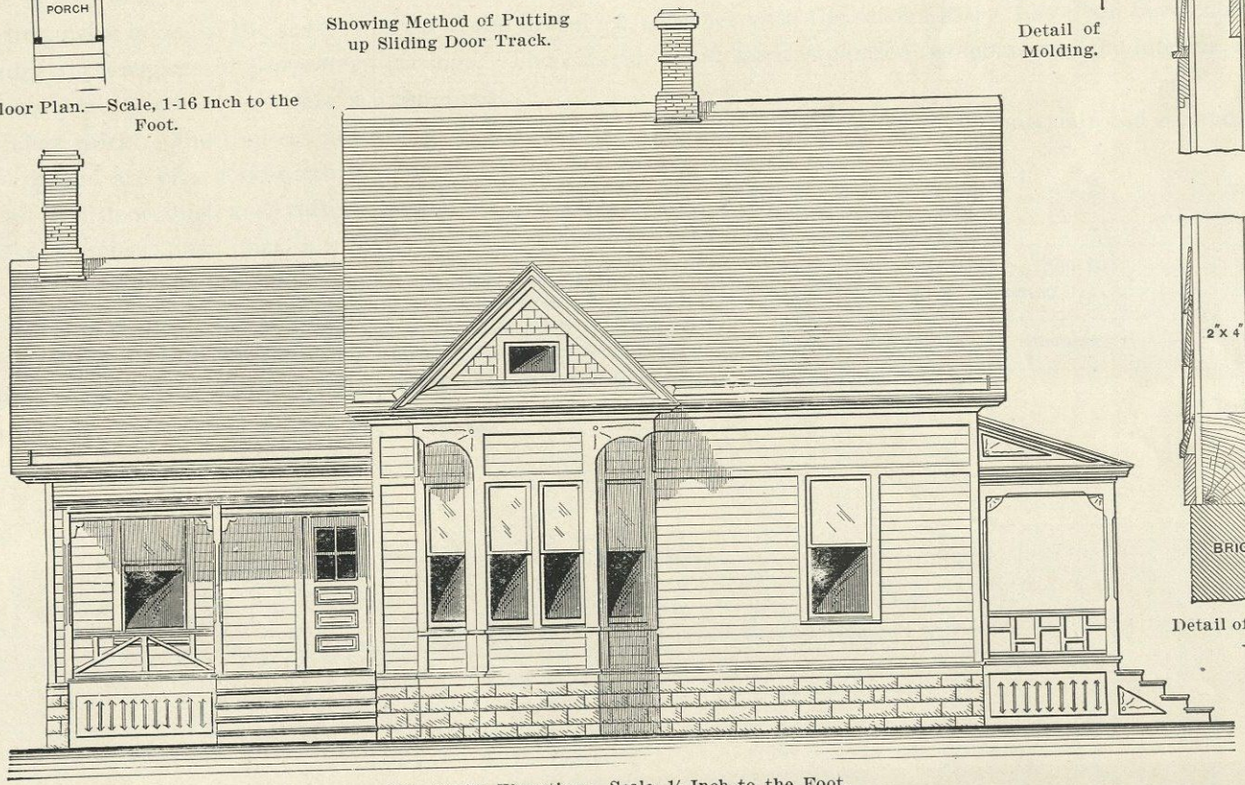


Detail of Kitchen Trim.—Scale, ¾ Inch to the Foot.

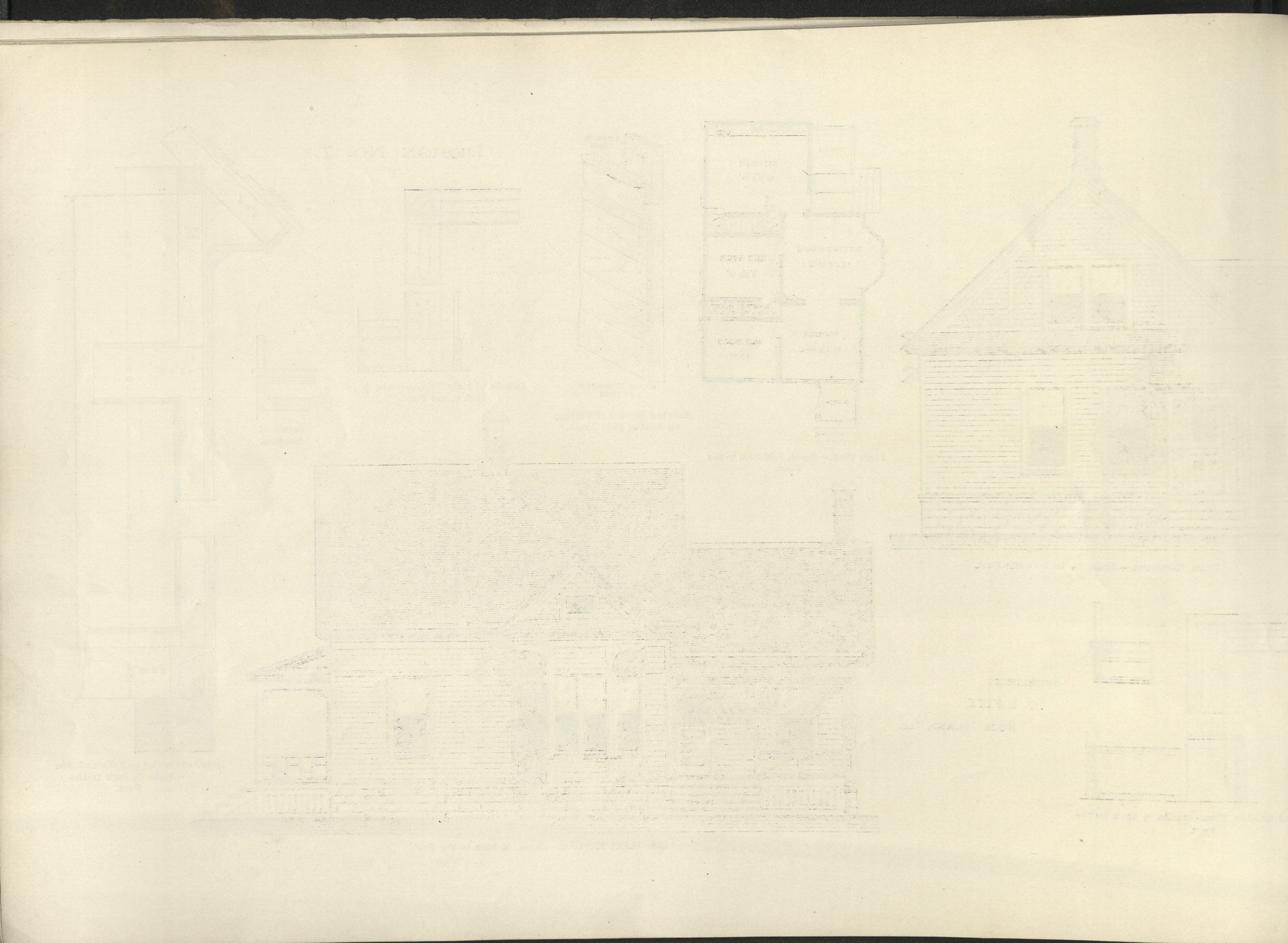
ARCHITECT:

O. I. FITZ,

ROCK ISLAND, ILL.



Side (Left) Elevation.—Scale, ⅛ Inch to the Foot.



DESIGN NO. 8.

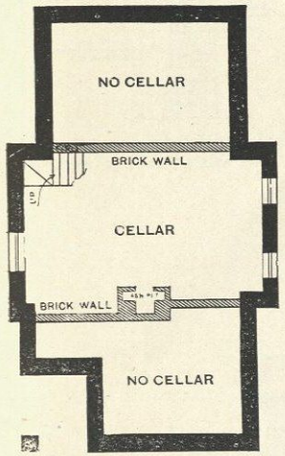
$1,000.

The seven-room building here presented was designed by William Kerr of Grand Rapids, Mich., who secured the first prize in one of the several competitions for $1,000 houses conducted under the auspices of *Carpentry and Building*. The cellar of the house has a bottom of cement concrete 2 inches thick and foundation walls 1 foot 6 inches thick. The timbers not exposed are of hemlock and those which are exposed are of second-quality pine. The house is balloon frame, with all studs, floor joist and rafters placed 16 inches on centers. The studs are 2 x 4 inches; floor joist, 2 x 8 inches; second-floor ceiling joist, 2 x 6 inches; rafters, 2 x 4 inches; sills, 6 x 8 inches, and girders, 8 x 8 inches. The sheeting is ⅞-inch square edged pine, on which are laid 4-inch clapboards. The roof is covered with 16-inch sawed pine shingles laid on ⅞-inch pine sheeting boards. The floors are ⅞-inch matched boards and the doors are of white pine. The principal rooms on the first floor have a pilaster finish with base, center and head blocks. The rest of the first floor, together with the second story, has plain beveled edge casings. The exterior wood work is painted two coats and the interior with three coats.

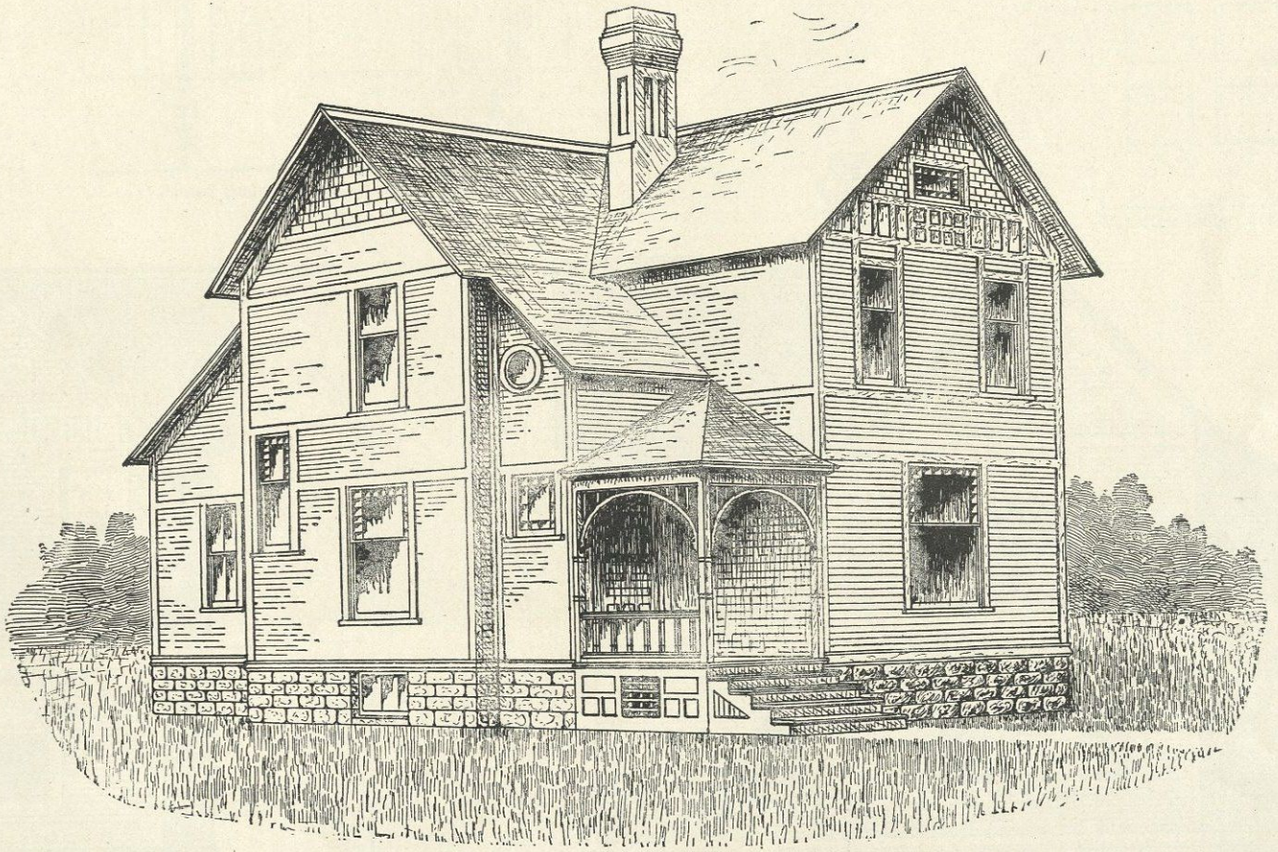
The architect furnishes the following bill of materials and estimate of cost:

Stone work, 54 perch	$106.00
Sills, 750 feet	9.00
2 x 8 inches, 2000 feet	24.00
2 x 6 inches, 700 feet	7.00
2 x 4 inches, 2700 feet	32.00
2 x 4 inches, 600 feet rafters	6.00
Culled boards, 4000 feet	40.00
Siding, 2000 feet	32.00
Flooring, 1800 feet	34.00
14 windows	28.00
14 doors	$32.00
1 slide door	10.00
10,000 shingles	25.00
Finishing lumber, 2500 feet	65.00
600 yards plastering	108.00
Painting	75.00
Brick work and chimneys	65.00
Carpenter work	300.00
Total	$998.00

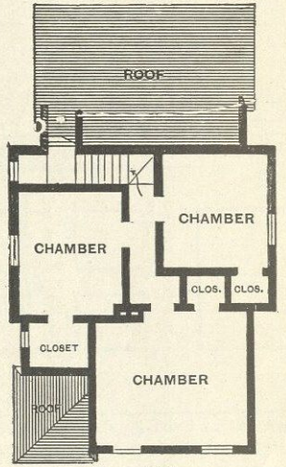
DESIGN NO. 8.



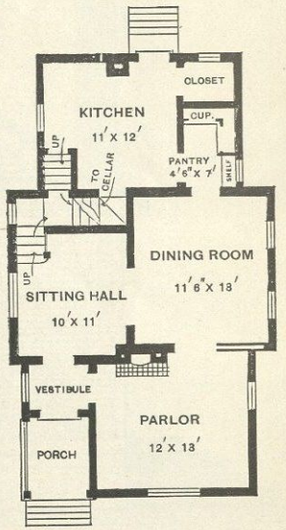
Foundation.—Scale, 1-16 Inch to the Foot.



Perspective View.



Second Floor.



First Floor.

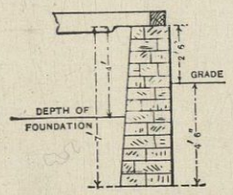
Scale, 1-16 Inch to the Foot.

ARCHITECT:

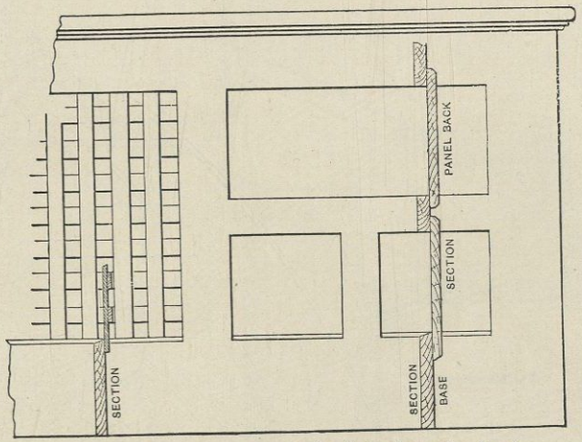
WILLIAM KERR,

GRAND RAPIDS, MICH.

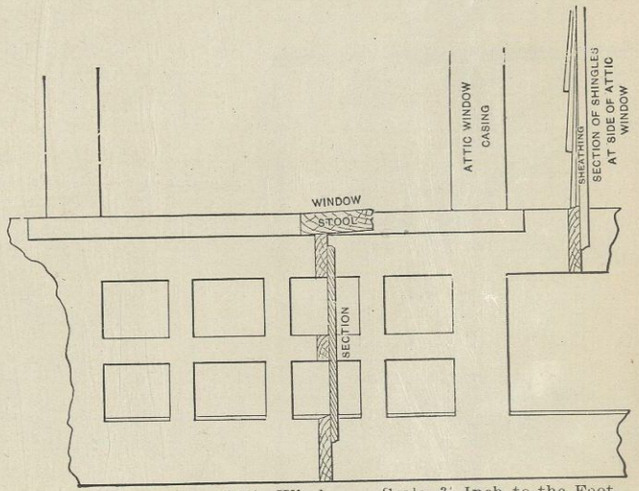
DESIGN NO. 8.



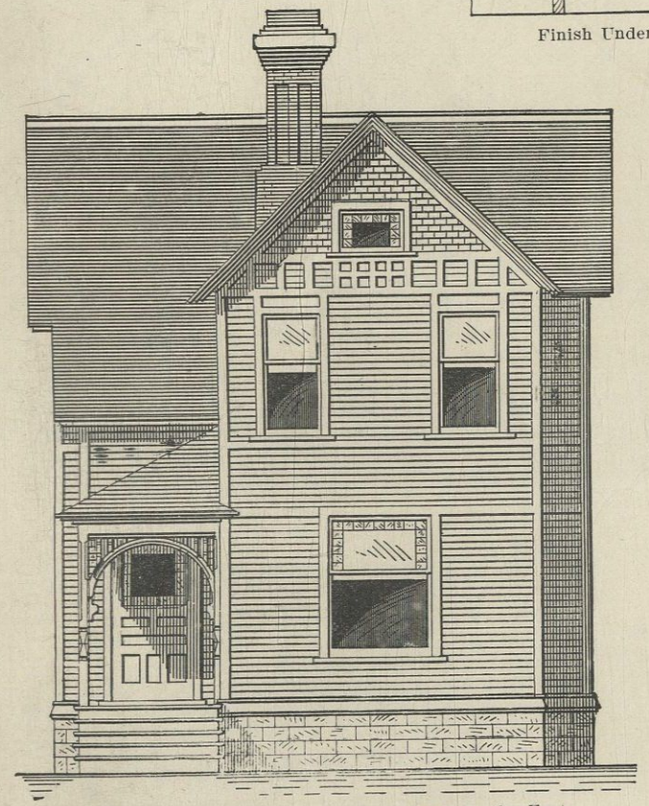
Section through Foundation Wall.—Scale, ⅛ Inch to the Foot.

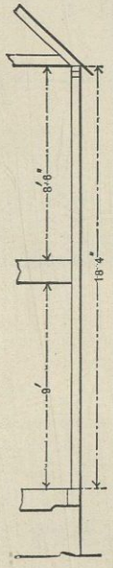


Finish Under Porch.—Scale, ¾ Inch to the Foot.

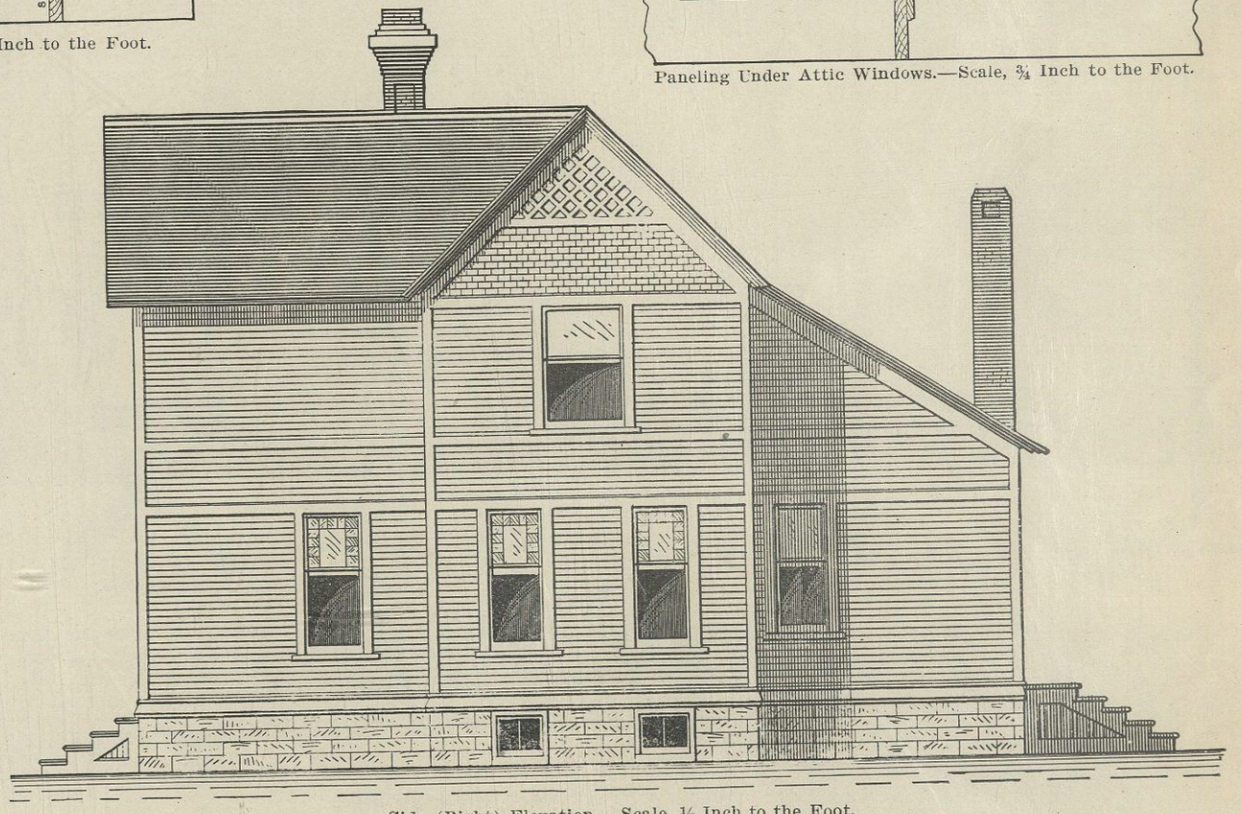


Paneling Under Attic Windows.—Scale, ¾ Inch to the Foot.

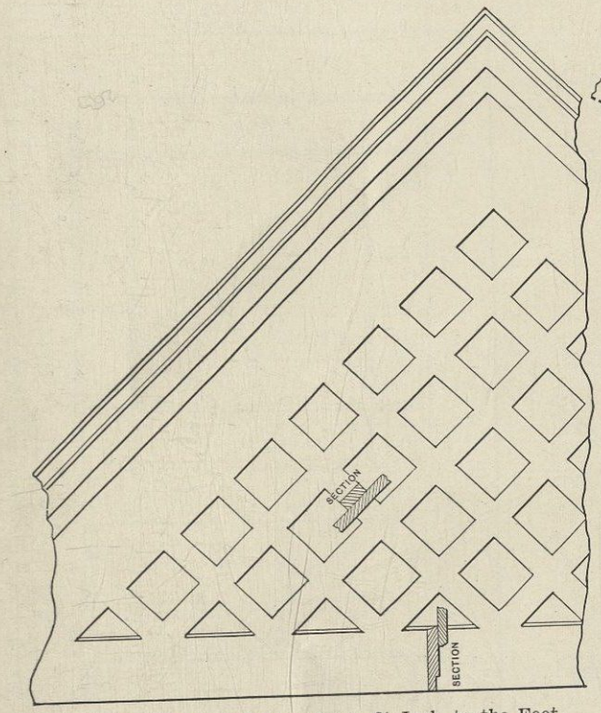




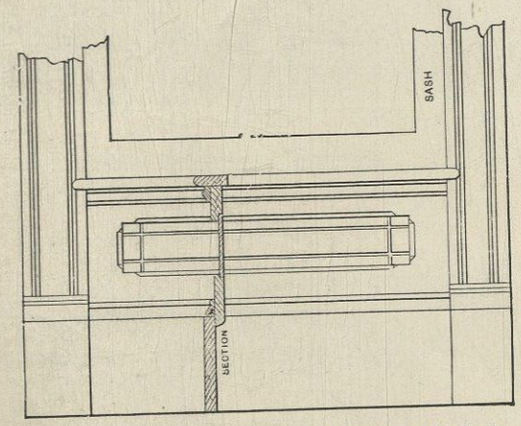
Front Elevation and Section.—Scale, ⅛ Inch to the Foot.



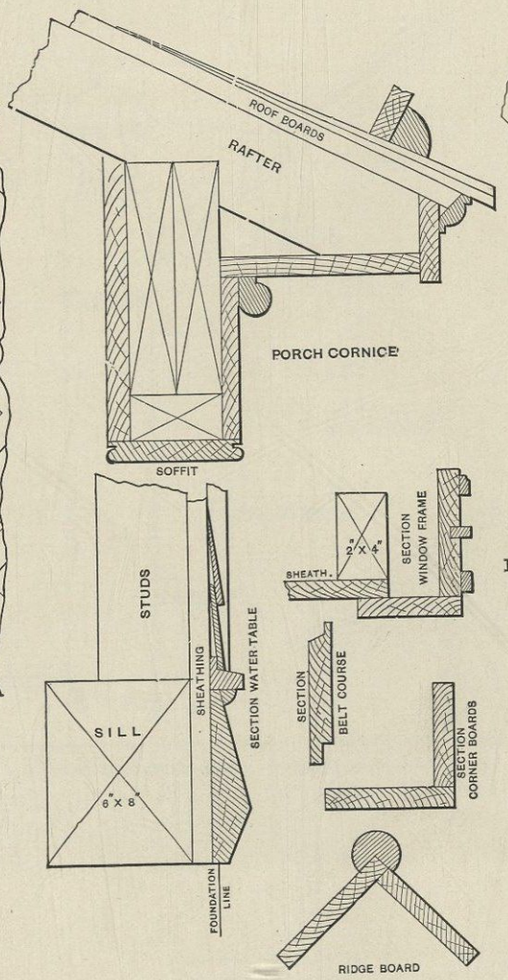
Side (Right) Elevation.—Scale, ⅛ Inch to the Foot.



Paneling in Side Gable.—Scale, ¾ Inch to the Foot.

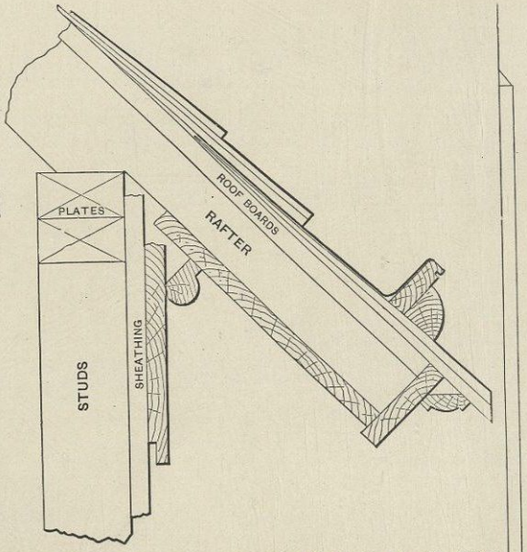


Panel Under Windows.—Scale, ¾ Inch to the Foot.

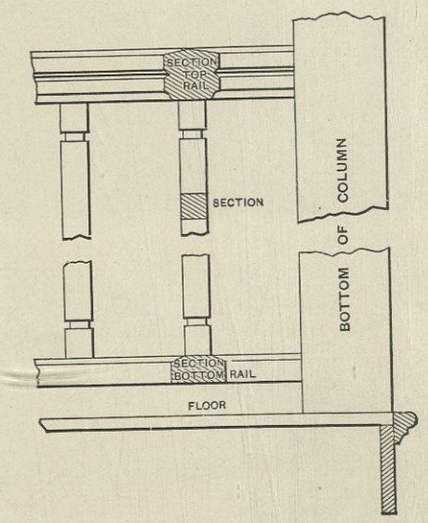


Miscellaneous Details.—Scale, 1½ Inches to the Foot.

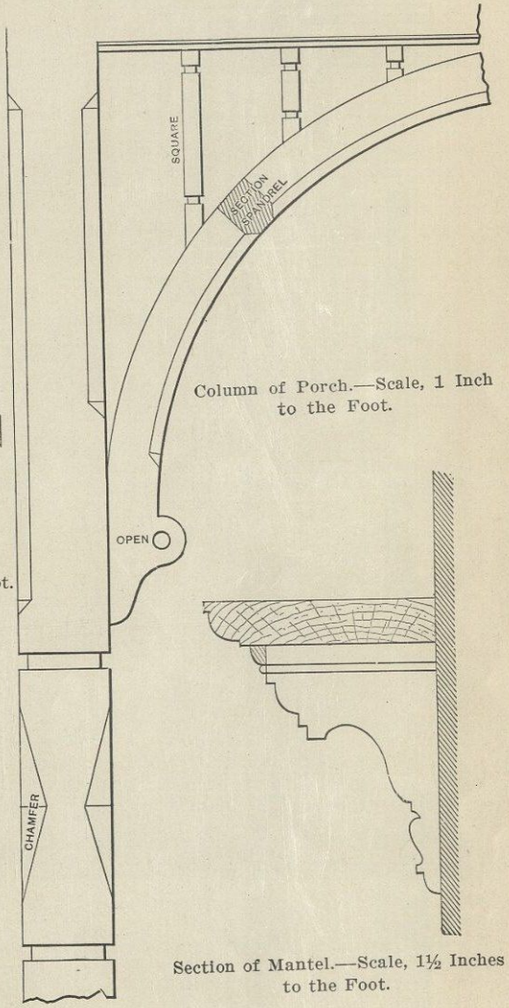
DESIGN NO. 8.



Detail of Main Cornice.—Scale, 1½ Inches to the Foot.

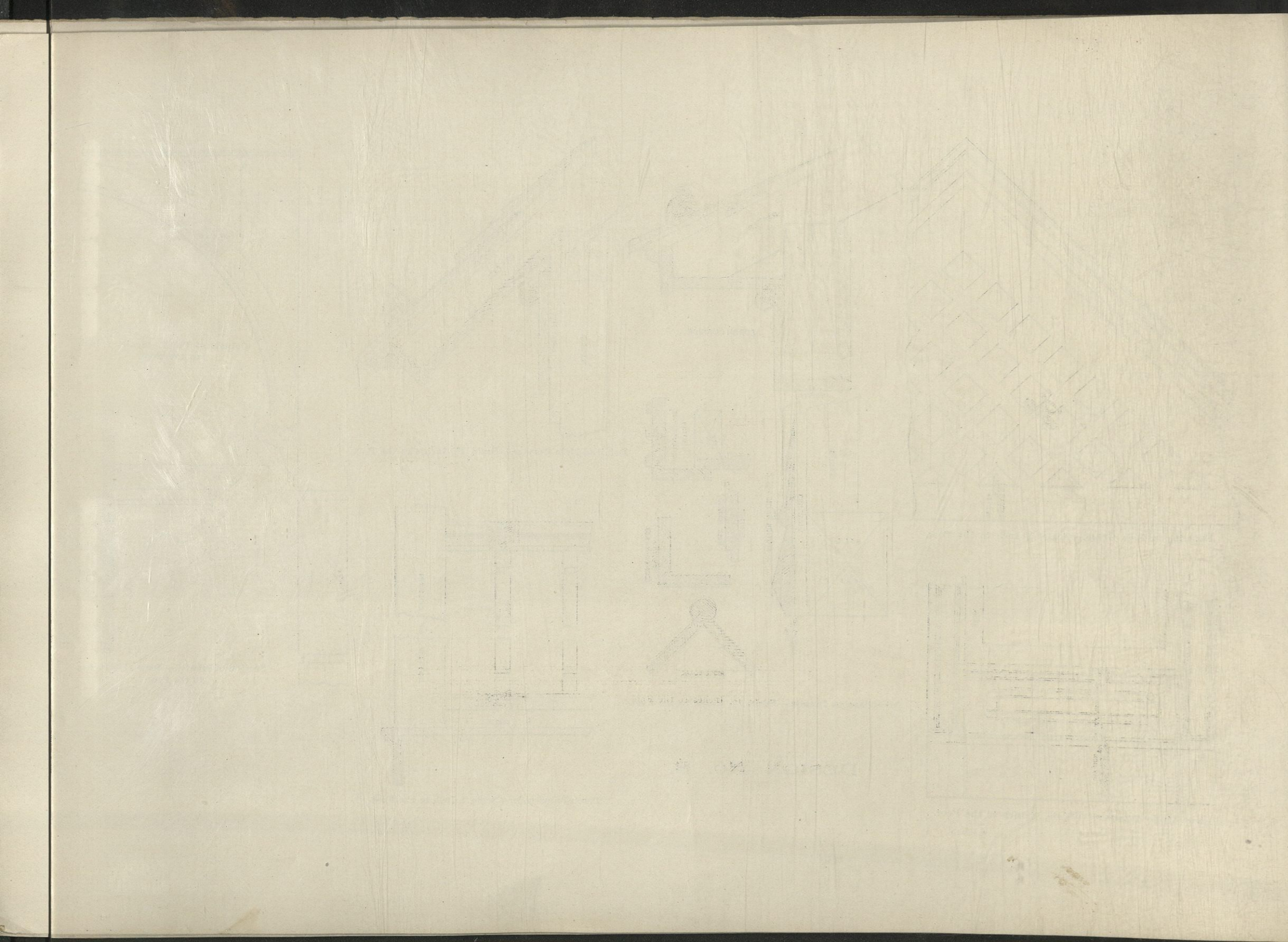


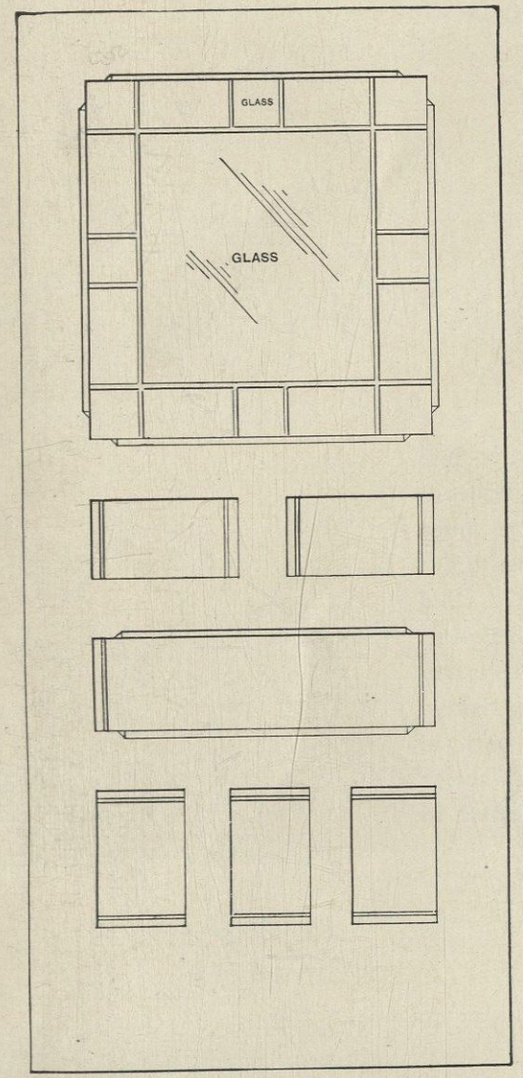
Porch Balustrade.—Scale, 1 Inch to the Foot.



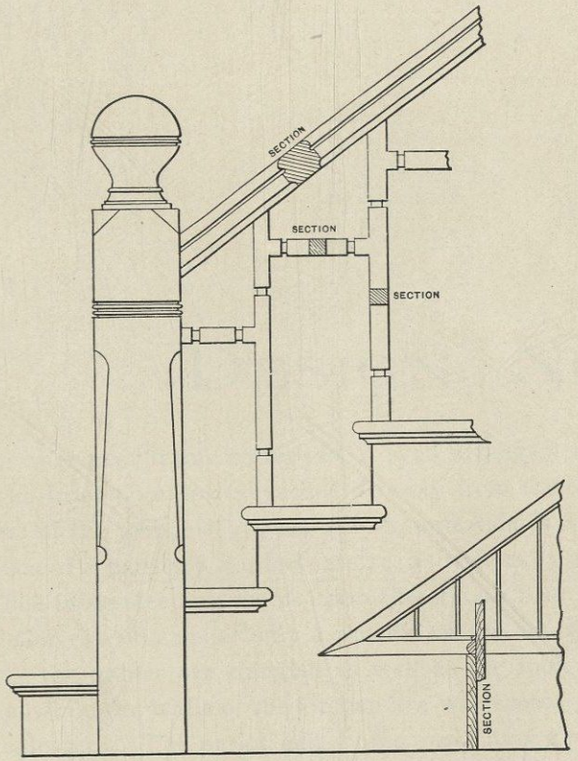
Column of Porch.—Scale, 1 Inch to the Foot.

Section of Mantel.—Scale, 1½ Inches to the Foot.





Front Door.—Scale, ¾ Inch to the Foot.



Details of Main Stairs.—Scale, ¾ Inch to the Foot.

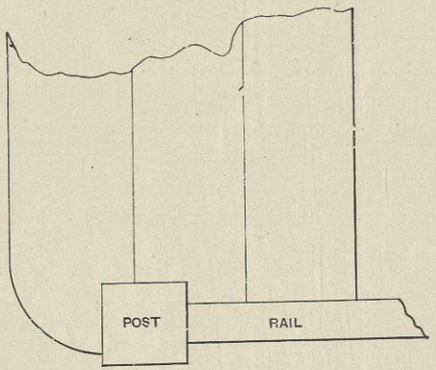
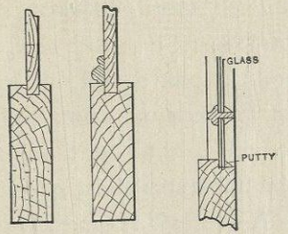
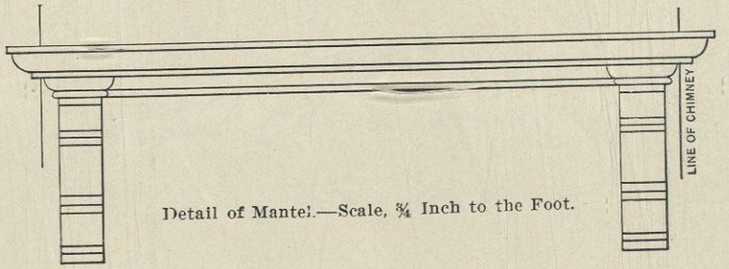


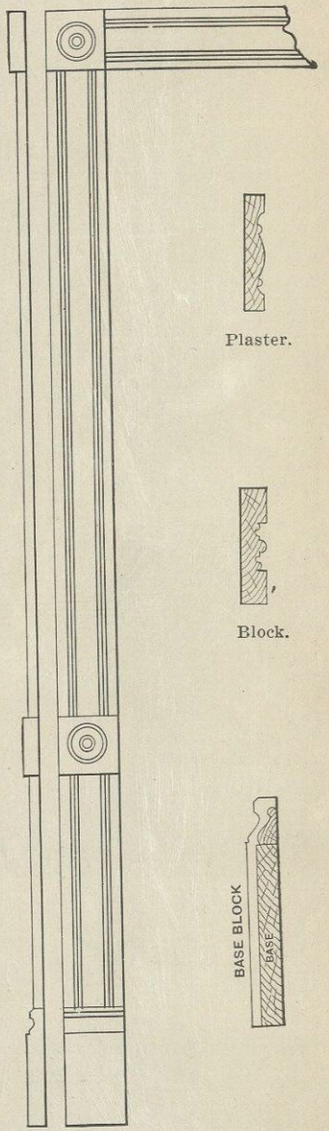
Diagram of Steps.—Scale, ¾ Inch to the Foot.



Sections of Door Stiles and Panels.—Scale, 1½ Inches to the Foot.



Detail of Mantel.—Scale, ¾ Inch to the Foot.



Door Trim.—Elevation, ¾ Inch to the Foot.—Sections, 1½ Inches to the Foot.

DESIGN NO. 8.

Design No. 9.

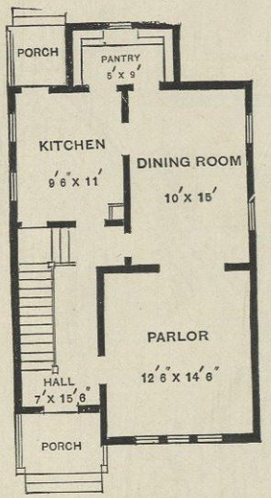
This rather neat frame cottage is of such arrangement as to provide three rooms on each floor and permit the front door to be reached directly from the kitchen without the necessity of passing through either of the principal rooms. Communication is had between the kitchen and the dining room by means of a pantry 5 x 9 feet in size, as well as by a door opening directly from one room to the other. The three sleeping rooms upon the second floor are all easily accessible from the upper hall. The cellar extends under only a portion of the house. As will be seen from an inspection of the elevations, the gables are shingled as well as the roof. The floors of the house are of 7/8-inch matched pine, while the walls of the kitchen are wainscoted 3 feet high. The stairs have cherry rails, newels and balusters. The parlor and dining room have a reeded finish. The front door of the house is fitted with stained glass, producing a neat and cheerful effect. All painting, both exterior and interior, is in two-coat work in tints of lead and linseed oil. The drawings were made by S. A. Bishop of Buffalo, N. Y.

DESIGN NO. 9.

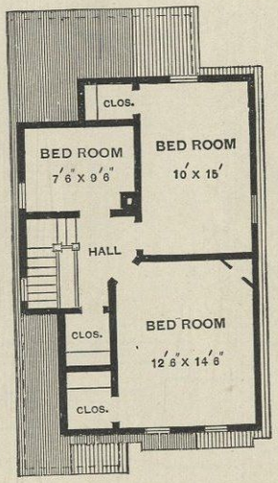
ARCHITECT:

S. A. BISHOP,

BUFFALO, N. Y.

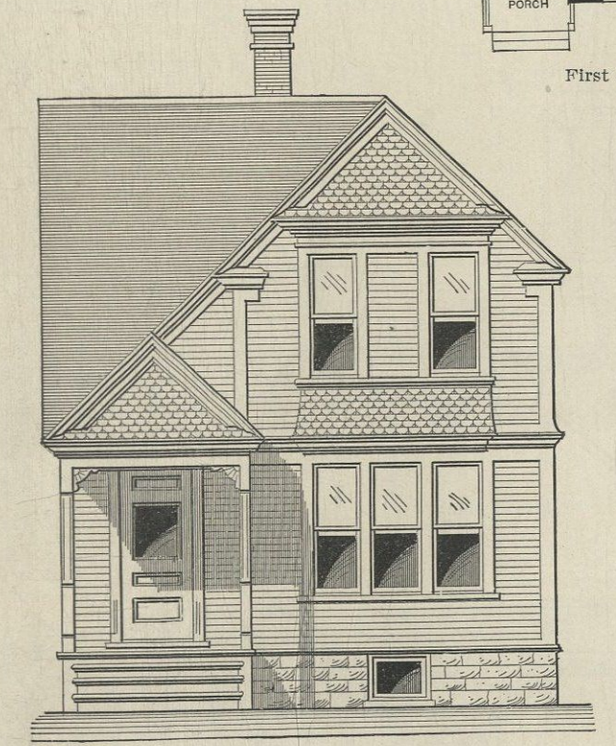


First Floor.

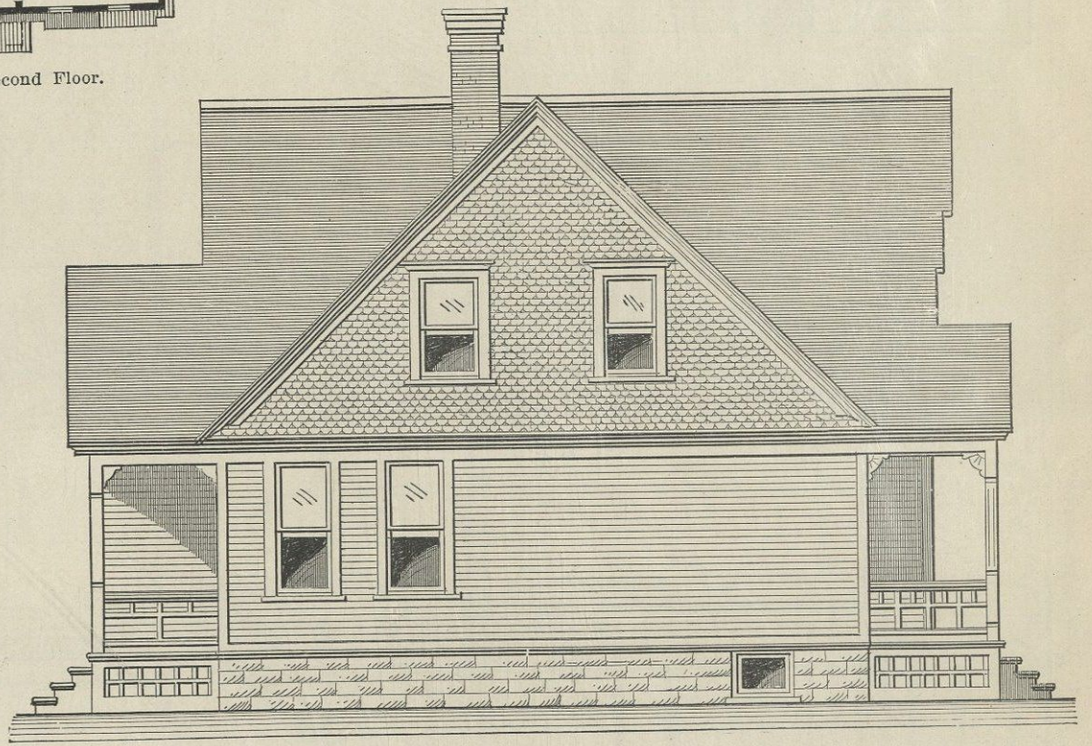


Second Floor.

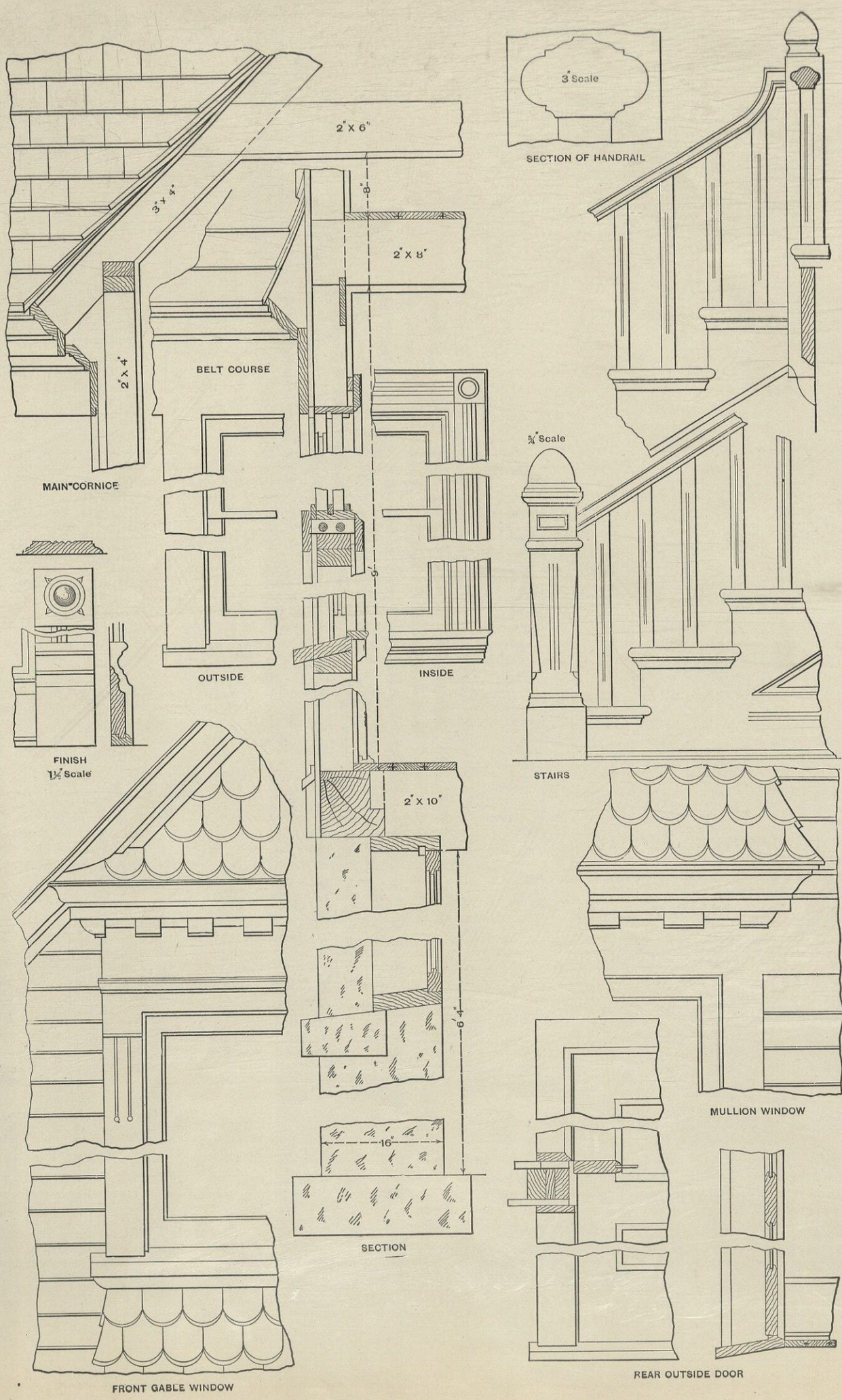
Scale.—1-16 Inch to the Foot.



Front Elevation.—Scale, ⅛ Inch to the Foot.



Side (Left) Elevation.—Scale, ⅛ Inch to the Foot.

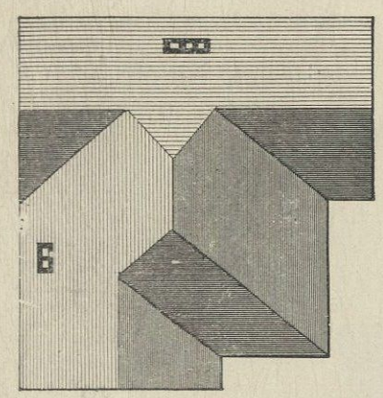

2"X 6"
3"x 4"
8"
2"X 8"
2"X 4"
BELT COURSE
MAIN CORNICE
OUTSIDE
INSIDE
9'
FINISH
1½" Scale
2"X 10"
6'4"
16"
SECTION
3" Scale
SECTION OF HANDRAIL
½" Scale
STAIRS
MULLION WINDOW
FRONT GABLE WINDOW
REAR OUTSIDE DOOR

DESIGN NO. 9.

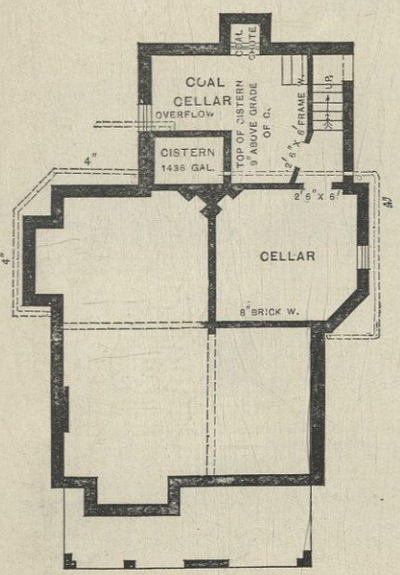
Design No. 10.

These elevations and floor plans represent a study in the design and construction of a frame dwelling, prepared by J. McA. Vance of Chattanooga, Tenn. On the first floor is a sitting room, dining room, kitchen, pantry, hall and vestibule, with cloak closet under the stairs. On the second floor are three chambers. The author refers particularly to the position of the fire places in the sitting room and dining room, the sliding door between these two rooms and the arrangement of the hall. The kitchen has two windows, but no outside door. The coal cellar is below the kitchen, to which easy stairs lead. The water service is also in the kitchen. The seven rooms are all heated and only two chimneys are employed.

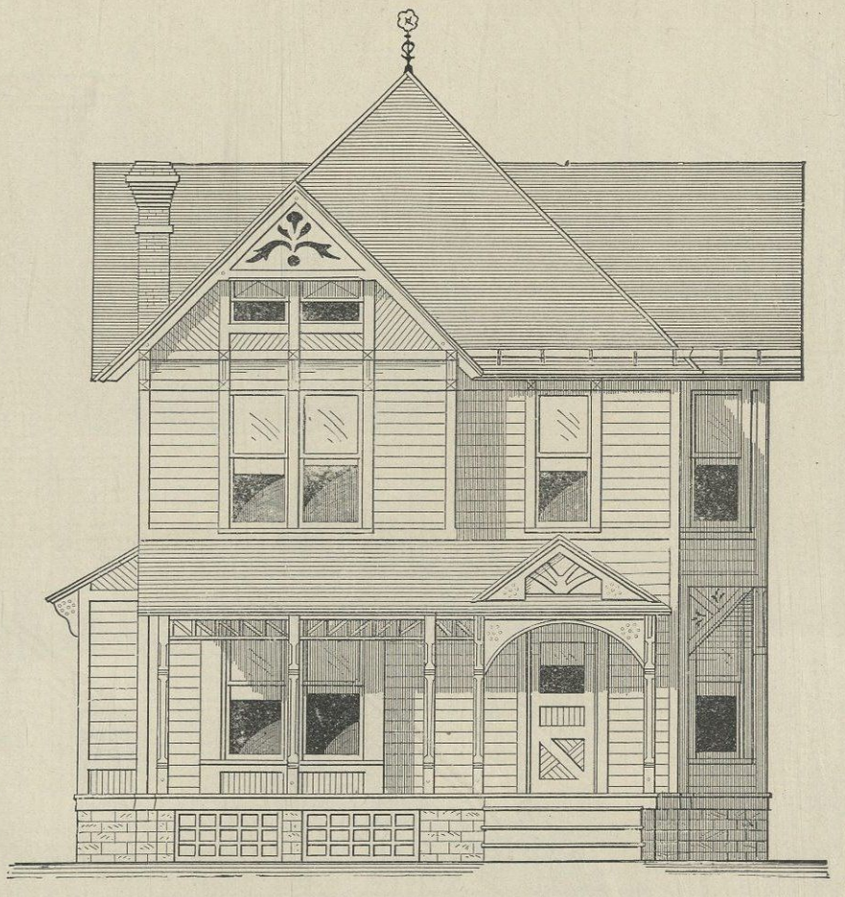
DESIGN NO. 10.



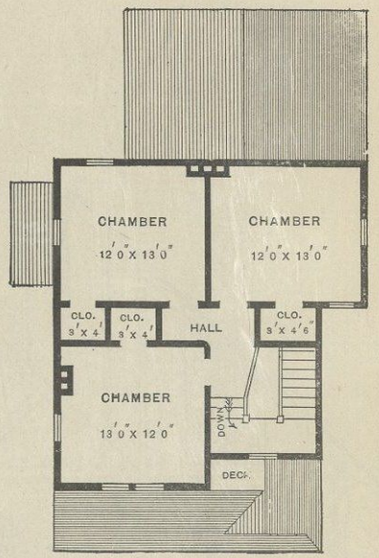
Roof Plan.



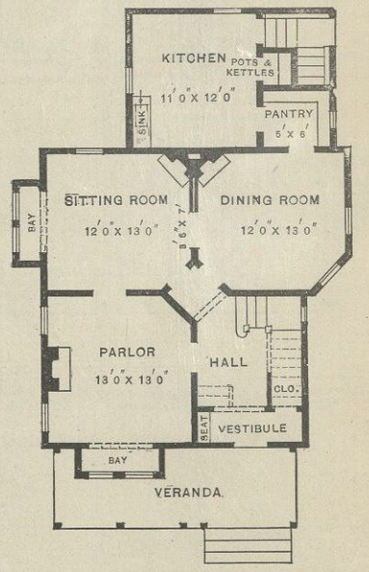
Foundation.
Scale, 1-16 Inch to the Foot.



Front Elevation.—Scale, ⅛ Inch to the Foot.



Second Floor.



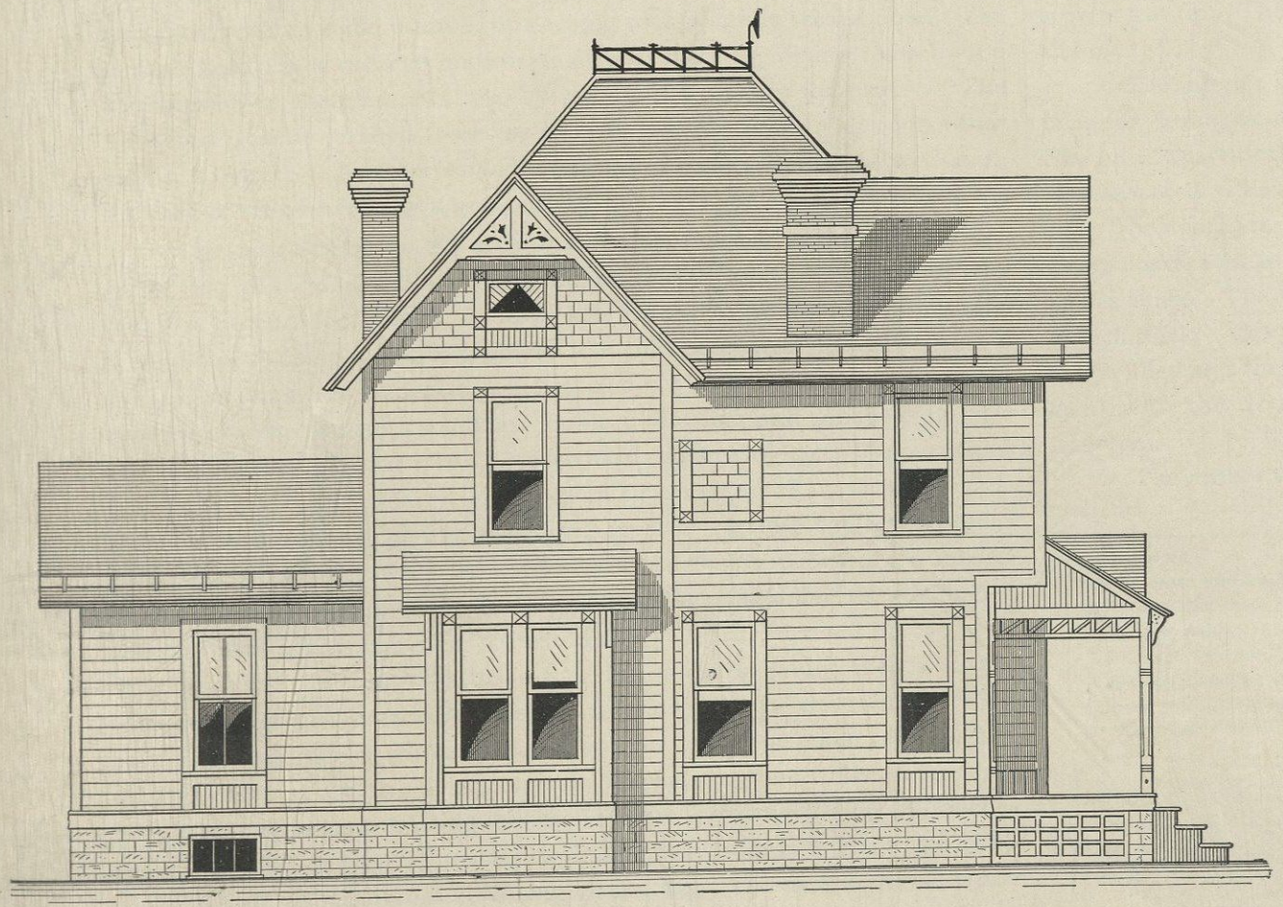
First Floor.
Scale, 1-16 Inch to the Foot.

DESIGN NO. 10.

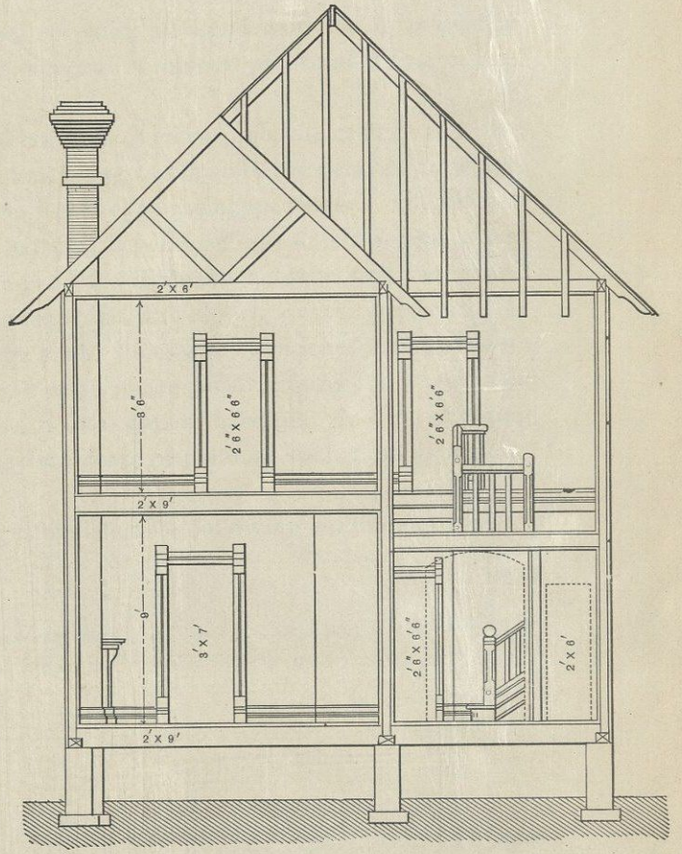
ARCHITECT:

J. McA. VANCE,

CHATTANOOGA, TENN.



Side (Left) Elevation.—Scale, ⅛ Inch to the Foot.



Sectional Elevation.—Scale, ⅛ Inch to the Foot.

DESIGN NO. 11.

$1,000.

In the cottage shown in this design there are three rooms upon the first floor, with an equal number of sleeping rooms on the second floor. The kitchen is so placed as to communicate directly with the dining room by the door shown on the plan, and also by means of a slide in the pantry. The front door can be reached from the kitchen without passing through other rooms, a feature to be commended in houses of moderate cost, as well as in the case of those involving a greater outlay.

In his specification the architect, F. Carl Pollmar of Petoskey, Mich., states that all framing timber is of sound hemlock, the sills 6 x 10 inches; the first and second floor joists 2 x 10 inches, placed 16 inches on centers; the second-story ceiling joist 2 x 8, placed 16 inches on centers; the rafters 2 x 6 inches, placed 2 feet on centers; the studs 2 x 4 inches, placed 16 inches on centers, and the plates 2 x 4 inches, double. The door and window studs are also doubled and all floor joists have a row of cross bridging. The partitions are of 2 x 4 inch stuff, placed 16 inches on centers, and all corners are made solid before lathing. The wood shed sills are 2 x 6, double, and rest on cedar posts; the studs and rafters are 2 x 4 inches and the attic joists 2 x 6 inches, placed 2 feet on centers. The outside of the frame, including the wood shed and the roof, is covered with 7/8-inch hemlock boards, dressed on one side. The roofs are covered with 16-inch cedar shingles, laid 5 inches to the weather. The gables are also shingled, as shown by the elevations.

Casing, cornice frames, &c., are of white pine, the porch columns and pilasters of elm, and the porch is ceiled overhead. The walls are covered with No. 1 clear and thoroughly dry beveled basswood siding 4½ inches wide, laid with at least 1-inch lap. Under these boards is placed building paper, which extends under all casing, frieze, &c. The exterior wood work, exclusive of roofs, has two coats of paint, all wood work being primed as soon as put up. The tin work has a coat of mineral paint and a coat of lead and oil.

The interior finish of the house is of white pine, the casings and base in parlor, dining room and main hall being as shown in the detailed drawings. The other apartments have plain bevel edge casing and base. The kitchen is wainscoted 3 feet high with natural beaded ceiling, finished with a neat cap. The doors are of white pine and 1⅜ inches thick, except all pantry and closet doors, which are 1⅛ inches thick, and sliding doors, which are 1¾ inches thick. The treads of the main stairs are 1⅛ inches and the risers ⅞ inch thick. The interior wood work of the parlor, dining room and main hall is filled and then finished with two coats of hard oil. In the remaining apartments the wood work has two coats of paint of such tints as may be preferred.

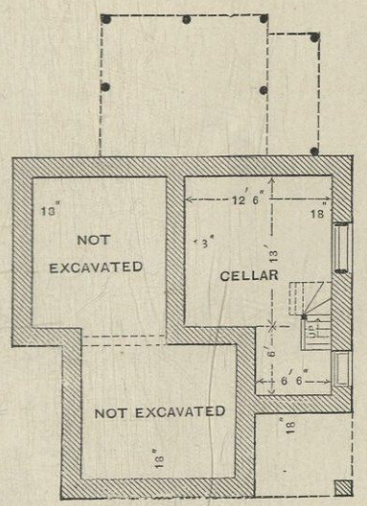
The author of the design furnishes the following estimate of cost:

Excavation		$20.00
Mason work		195.00
Carpenter work:		
Cedar posts and 12,700 feet hemlock lumber	$95.00	
14½ M shingles	36.00	
2,800 feet siding	34.00	
1,900 feet flooring	35.00	
2,400 feet finishing lumber	50.00	
Turned work, moldings, &c.	22.00	
Doors, windows and hardware	90.00	
Labor	220.00	
		582.00
		89.00
Plastering		90.00
Painting		24.00
Tinners' work		
Total		$1,000.00

ARCHITECT:

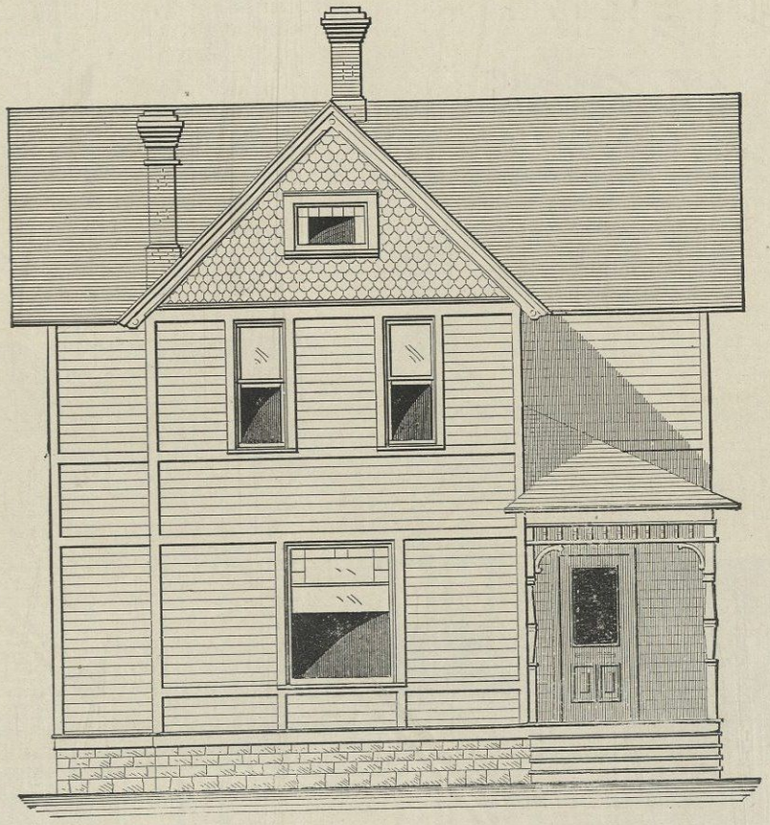
F. CARL POLLMAR,

PETOSKEY, MICH.



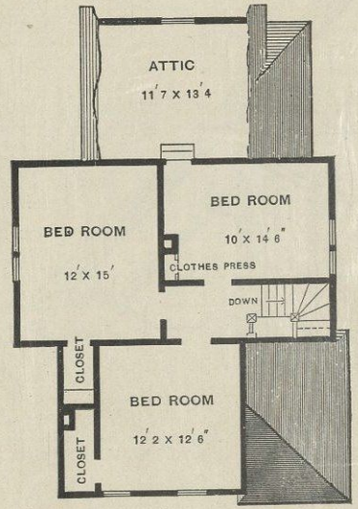
Foundation.

Scale, 1-16 Inch to the Foot.

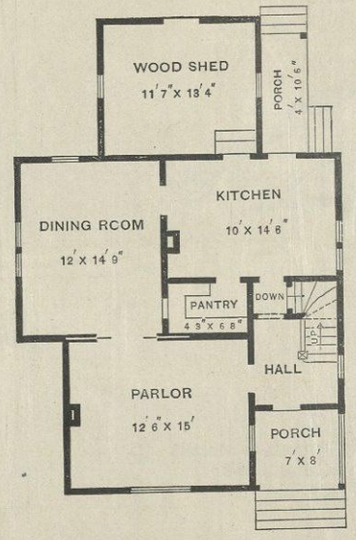


Front Elevation.—Scale, 1/8 Inch to the Foot.

DESIGN NO. 11.



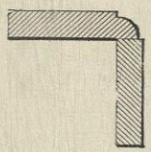
Second Floor.



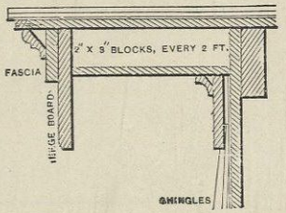
First Floor.

Scale, 1-16 Inch to the Foot.

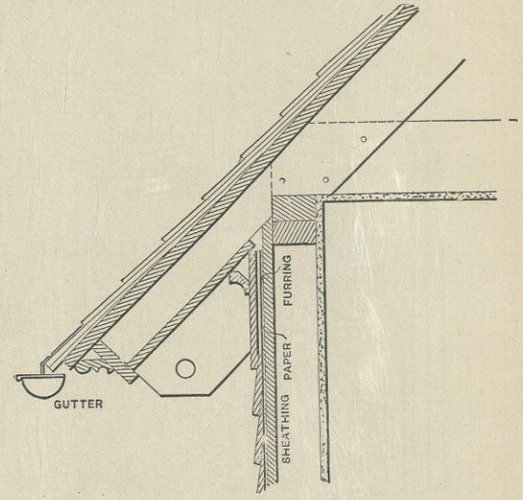
DESIGN NO. 11.



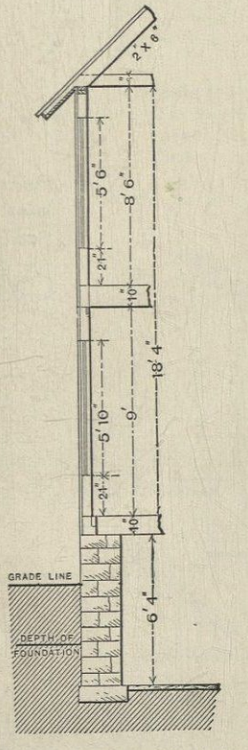
Corner Boards.—Scale, 1½ Inches to the Foot.



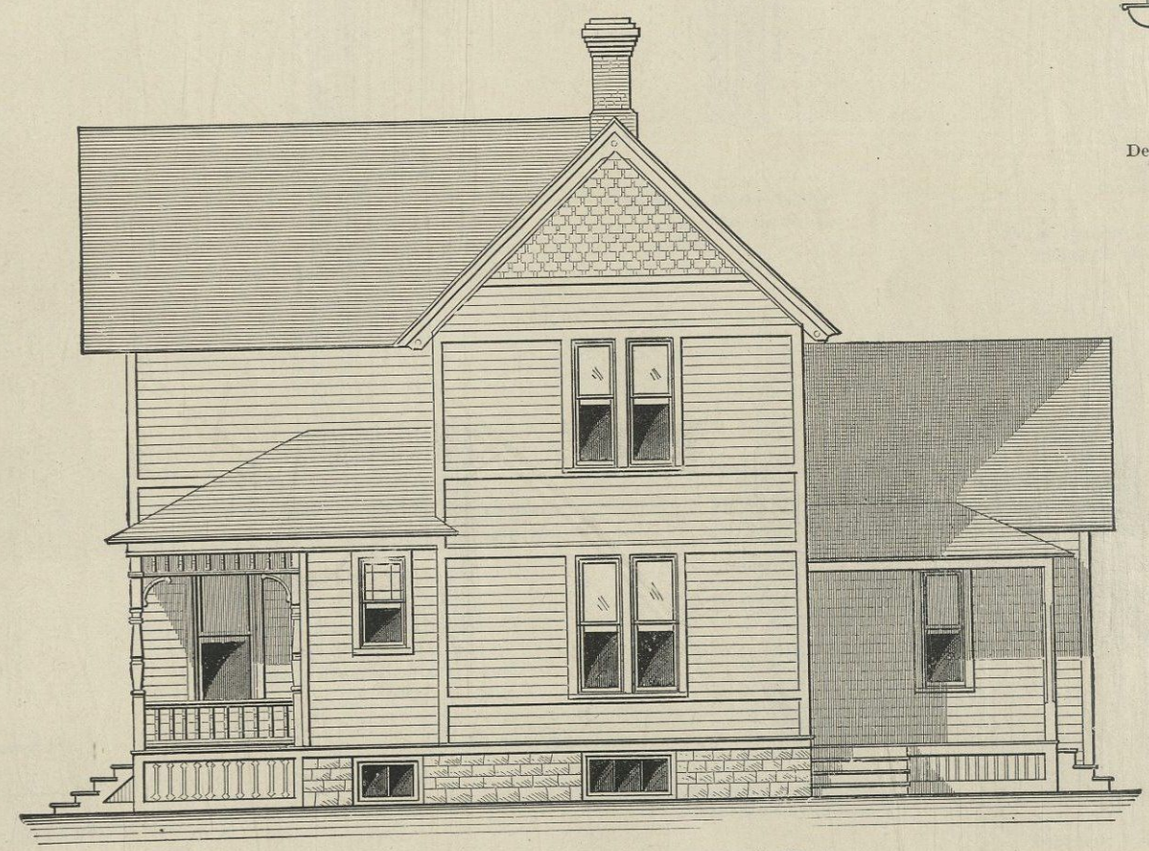
Section of Gable Cornice.—Scale, ¾ Inch to the Foot.



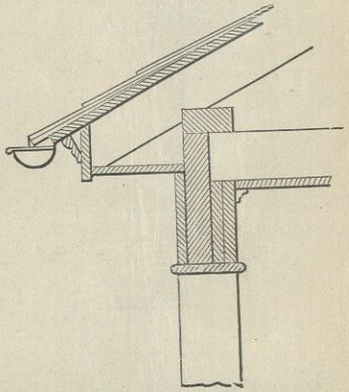
Details of Main Cornice.—Scale, ¾ Inch to the Foot.



Section.—Scale, ⅛ Inch to the Foot.



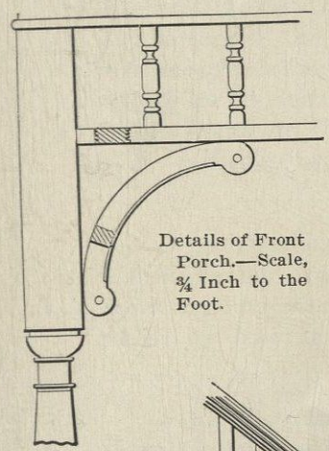
Side (Right) Elevation.—Scale, ⅛ Inch to the Foot.



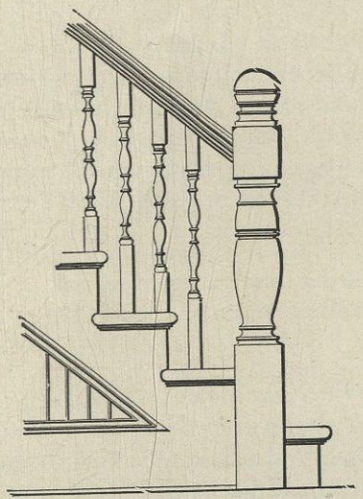
Details of Cornice of Front Porch.—Scale, ¾ Inch to the Foot.

DESIGN NO. 11.

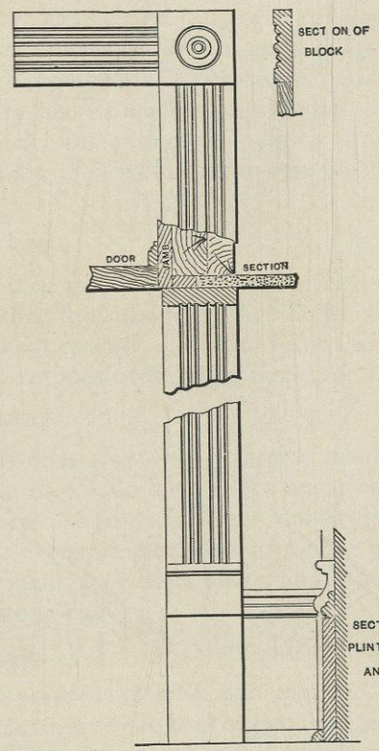
Section of Hand Rail. —Scale, 1½ Inches to the Foot.



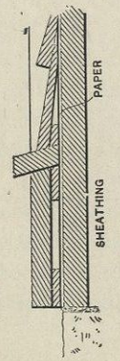
Details of Front Porch.—Scale, ¾ Inch to the Foot.



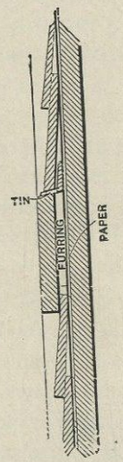
Elevation of Main Stairs.—Scale, ½ Inch to the Foot.



Detail of Door Frames.—Scale, 1 Inch to the Foot.

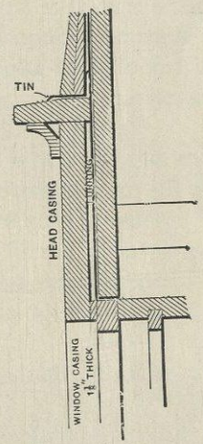


Detail of Water Table. —Scale, 1½ Inches to the Foot.

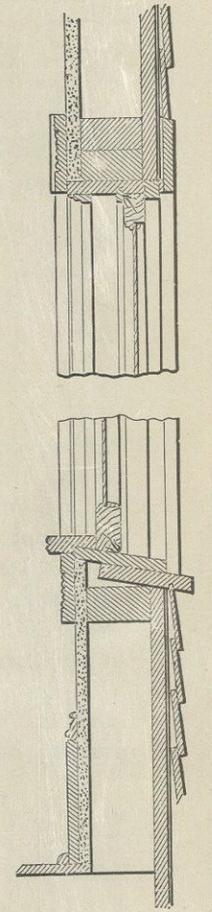


Section of Belt Course.—Scale, 1½ Inches to the Foot.

Porch Spindle.—Scale, 1½ Inches to the Foot.



Head Casing of Windows in Front Gable.—Scale, 1½ Inches to the Foot.



Detail of Window Frames.— Scale, 1 Inch to the Foot.

DESIGN NO. 12.

$1,000.

This design was awarded first prize in one of the competitions for houses to cost $1,000 conducted under the auspices of *Carpentry and Building*. The arrangement is convenient and the space utilized to good advantage. The author of the design is John P. Kingston of Worcester, Mass., who furnishes the following specification: The bed stones for the foundation piers are 24 inches square and 6 inches thick; the piazza foundation stone 20 inches square and 6 inches thick, with a 3-inch iron pipe to rest piazza sill upon, and 4 feet below finished grade.

BRICK WORK.

Underpinning.—All brick used to be good hard burned brick laid up in best manner, properly bonded and culled for outside work. To be cleaned down at completion. To be laid in cement mortar. Wall to be of thickness shown by drawing. Put in all brick fire stopes ordered by inspector.

CHIMNEYS.

Lay up chimney as shown, with flues smoothly plastered inside and chimney plastered outside from cellar to roof. To have 8 x 10 cast iron door at bottom of chimney, and to have cast iron thimble for each room adjoining chimney, with cap for each. Build in 2½-pound sheet lead at roof in proper manner for carpenter to shingle in, to make roof tight all around the chimney. The chimney to have artificial stone cap.

CELLAR.

Inside of cellar wall to be well pointed up with hair mortar.

All brick and stone walls in cellar to have one coat of good whitewash.

LATHING.

All walls, partitions, ceilings and all furred places to be plastered will be lathed with best spruce lath, full thickness, free from bark, knots or anything to stain the plaster. Break joints every eighth lath, all put on horizontal. Lath behind all base and wainscoting on outside walls. All laths in corners or angles must be nailed to solid bearings.

PLASTERING.

All walls and ceilings of the entire building will have a coat of good lime, hair and sand mortar, to be well mixed together, and to be mixed at least four days before using.

The ceilings of all rooms will have a second coat of good whitewash, and to be left perfectly white and clean at completion. All plaster to be carried down to floors on outside walls. All the above work to be done in a good and thorough manner, using good materials, and the mason will fix up all places damaged, and clean up the building in a neat and proper manner.

CARPENTER WORK.

Framing timber to be of good spruce, free from imperfections to hurt the strength or durability of the timber. Frame to be of the following sizes: Girder, 6 x 8; sills, 4 x 6; first-floor joist, 2 x 8; second-floor joist, 2 x 7, set 16 inches on centers. Rafters, 2 x 5, and collar beams, 1 x 6, 24 inches on centers. Corner posts, 4 x 6; piazza sills, 4 x 6; joist, 2 x 6; wall studs, 2 x 4; main partition studs, 2 x 4; minor partition studs, 2 x 3, placed 16 inches on centers. Framing to be done in balloon framing style, joist under partitions to be double. All corners to be made solid. All partitions to have sills and cap same size as studs.

Truss over all door openings when at right angles to joist. Main partition to foot upon girder, and cap above to form sill of partition above where they come over. Put in all wood fire stopes ordered by inspector.

Furring.—All ceilings to be furred with ⅞ x 2½ inch strips, put up 16 inches on centers, well nailed and straightened.

Bridging.—All joist to be bridged with 1 x 2½ inch strips, nailed with two nails at each end.

Grounds and Beads.—Put ¾-inch grounds and corner bead where necessary to plaster against.

Inclosing Boards and Lining Floors.—To be No. 2, ⅞-inch, square edged, planed hemlock boards, to be well nailed to each and every bearing, with all joints made on solid bearings.

DESIGN NO. 12.—Continued.

Roof Boards.—To be No. 2, 7/8-inch, square edged hemlock boards, laid 3 inches apart, and well nailed.

Shingling Roof.—All roofs to be covered with good quality 16-inch cedar shingles, laid 5 inches to the weather. Shingle in painted tin flashing where necessary. Lay valleys open, with 14-inch painted tin, well soldered together, in each valley. Put on pine saddle boards on all ridges. Flash around chimney in best manner to make all perfectly safe.

Side Shingle.—All walls or gables shown, or marked, to be covered with cedar shingles, cut as shown.

Clapboarding.—All outside walls shown or not shingled to be covered with a good quality spruce clapboard, 6 inches wide, laid 4½ inches to the weather, with close, clean joints, well nailed on every stud and once between.

Sheeting Paper.—All outside wall surface is to be covered with a good quality of building paper, lapped at least 2 inches. Put strips under all frames and finish. Put same paper between floors on first story.

OUTSIDE FINISH.

All outside finish to be No. 2, well seasoned pine, all made as per detail drawings. Piazza floor will be 7/8-inch tongued and grooved N. C. pine, blind nailed. Ceiling will be 3/4-inch narrow spruce sheeting, with 1½-inch bed molding in angle.

Outside steps will have 7/8-inch risers of pine. Treads, 1½ inches, of N. C. pine.

Windows.—All window frames to be made as per detail drawings. Cellar windows to have 1¾-inch plank frames, 1¼-inch glazed sash, hung at top with 2-inch wrought butts, with button, fastener and hook and eye to hold open.

Window frames above to have 1¾-inch stool, 7/8-inch by 5-inch casings, and 7/8-inch pulley stiles, with pockets cut for weights and good finish face pulley.

Sash.—All windows shown to be fitted with 1⅜-inch pine lip sash, glazed with No. 2 American glass, well leaded and puttied, all to be hung and evenly balanced with cast iron weights and sash cord. All weighted windows to have outside blinds, hung and trimmed with good blind fasteners. Stationary sash to be as shown, with cathedral glass in border lights and plain glass in center.

Outside Doors and Frames.—Front doors to be as shown, 1¾ inches thick, of good pine, the side door of pine, 1½ inches thick. Outside doors to have 1¾-inch pine frames, 1¾-inch hardwood sills, and casings same as window frames, or per details.

INSIDE WORK.

Floors.—Lay the floors in kitchen, pantry and entry with 7/8-inch kiln dried birch flooring, not more than 3 inches wide, driven tight together, blind nailed, laid at right angles to lining floor, and joints smoothed up. The remaining rooms on first floor will have top floor of No. 2, 7/8-inch, square edge pine flooring. The whole of second floor will have a single floor of No. 1, 7/8-inch, narrow tongued and grooved spruce flooring, all well nailed and cleaned up.

Interior Finish.—All to be constructed as required by the plans and details, with sound, clear, kiln dried whitewood. All put up with neat close joints, smoothed up and sandpapered. Base put down in all rooms not wainscoted. All interior finish put on after plastering is dry.

Doors.—Provide good 1⅜-inch four-panel doors 6 feet 8 inches high by 2 feet 6 inches wide, to have bevel edges, raised panels, in first story. Provide 1¼-inch four-panel doors, 6 feet 6 inches high by 2 feet 6 inches wide, with bevel edges, raised panels, for second story, all to be hung with two loose joint butts, in good, workmanlike manner.

Door and Window Trimmings.—Provide and put up all door and window finish as per plans and details.

Wainscoting.—Kitchen and entry will be sheathed up 3 feet high with narrow beaded sheeting, and to have a 3-inch molded cap on top.

Closet Base.—All closets to have base 6 inches wide and casings 3½ inches wide, of plain stock.

Pantry.—Fit up pantry as shown, with counter shelf on two sides, sheeted under, and closet for flour barrel, with cleat doors and cover. Put up four shelves over 12 inches wide on rabbeted cleats.

Kitchen Closet.—Kitchen closet to have four shelves, on rabbeted cleats.

DESIGN NO. 12.—Continued.

Other Closets.—All other closets to have one shelf and two rows of wardrobe cleats, with hooks 12 inches apart on each cleat.

Sink.—Sink in kitchen to be fitted up with border casing 6 inches wide to set sink into, sheeted under with cleat door. To have drip shelf as shown sheeted back 16 inches high with shelf on top.

Clock Shelf.—Put up in kitchen and sitting room a clock shelf 1⅛ inches thick, molded edges, set on bronze brackets; to be put where directed.

Stairs.—Construct the stairs as shown, on three plank stringers each. Cellar stairs to have 1⅛-inch treads, ⅞-inch risers, of spruce. Front stairs to have 1⅛-inch treads, ⅞-inch risers and Scotia molding and nosing, all of white wood properly put up.

Electric Bell.—To be electric bell in kitchen to connect with button at front door, all of good material, properly wired and put in position.

HARDWARE.

The contractor will allow $30 for hardware, which will include door trimmings, sash fasteners, drawer pulls, cupboard catches and hinges, base knobs, wardrobe hooks and screws for same, all to be fitted in place by contractor. All of the above hardware to be selected by the owner.

PAINTING.

Outside.—All outside work to have two coats best lead and oil paint, in colors to be selected by the owner. Putty stop all nail holes in finish and shellac all knots and sap before painting. The roof will not be painted.

Interior.—All the inside work must be well cleaned off and puttied to match the wood as near as possible, and to have one coat of stain or liquid filler (as owner directs) and two coats of preservative; to be rubbed down between coats.

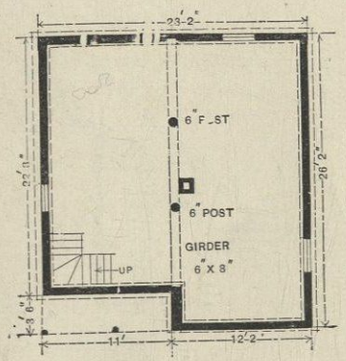
Hardwood floors to have one coat of oil. Plastered walls of kitchen and pantry to have one coat of liquid filler and two coats paint. All materials used by painter to be good stock of their several kinds, and labor done in a good manner.

PLUMBING.

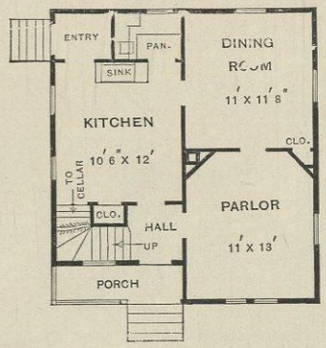
Furnish and set up where shown in kitchen a 20 x 36 x 5 inch Miller cast iron sink, with 4-inch round trap and 1¼-inch lead waste pipe to under side of floor; from there continue waste pipe to inside of cesspool wall with 2-inch cast iron soil pipe. Supply sink with water, using a small pitcher pump and all necessary pipe for same.

DETAILED ESTIMATE OF COST.

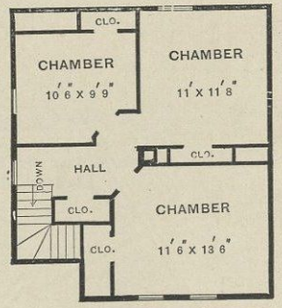
MASON WORK.			
62	Yards excavation	$15.50	
39	Perch field stone	46.80	
3900	Brick	46.80	
1	Chimney cap	1.75	
5	Chimney thimbles	2.50	
6	M. lath	27.90	
400	Yards plaster	48.00	
	Pointing cellar	2.25	
	Whitewashing cellar	1.75	
			$193.25
CARPENTER WORK.			
3850	Feet framing timber	$59.67	
	Grounds and beads	2.65	
3700	Feet square edge hemlock boards	55.50	
8	M. cedar shingles	28.00	
525	Pieces 6 foot 6 inch spruce clapboards	28.87	
	Flashings	11.20	
	Sheeting paper and nails	27.00	
	Outside finish	20.00	
	Front piazza finish	10.00	
2	Outside steps	7.70	
14	Window frames, sash and blinds	70.00	
3	Cellar frames and sash	4.05	
2	Outside door frames	4.50	
1	Front door 1¾ inches thick	7.25	
1	Side door 1¼ inches thick	$3.50	
175	Feet sheeting for kitchen, &c.	7.00	
43	Feet 3-inch sheeting cap	.80	
238	Feet 7-inch base; 100 feet 2-inch base molding	7.74	
16	Door jambs	5.60	
16	Doors 1¾ inches thick	25.60	
27	Sides finish for doors	13.50	
14	Sides finish for windows	8.90	
1	Pantry	2.62	
1	Sink	1.76	
2	Dish closets	4.80	
4	Clothes closets	2.20	
1	Flight front stairs; 1 flight cellar stairs	9.34	
210	Feet birch flooring	9.45	
325	Feet pine flooring	7.15	
675	Feet narrow spruce flooring	14.85	
2	Clock shelves	.60	
	Electric bell	3.25	
	Hardware	30.00	
	Carpenter's labor	175.00	
	Incidentals	43.38	
			$907.58
	Plumbing	23.00	23.00
	Painting	65.00	65.00
	Total		$995.58



Foundation.



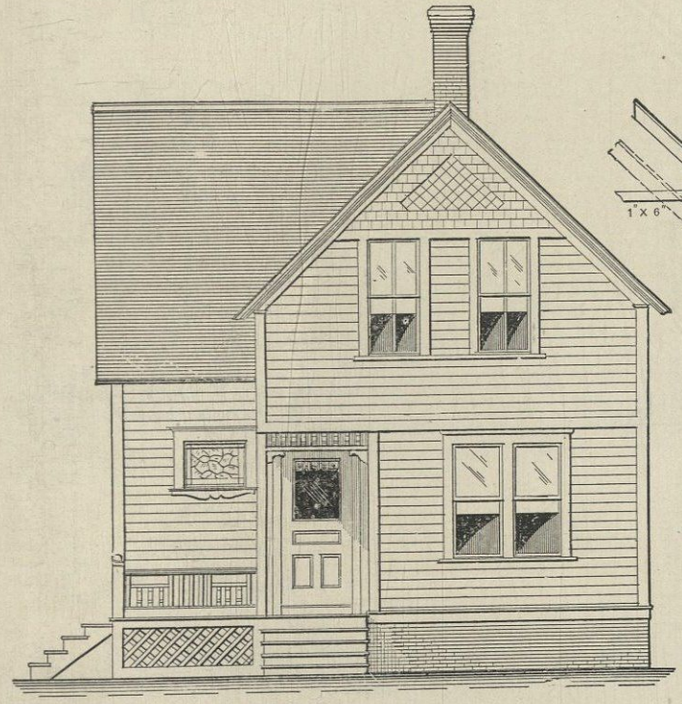
First Floor.



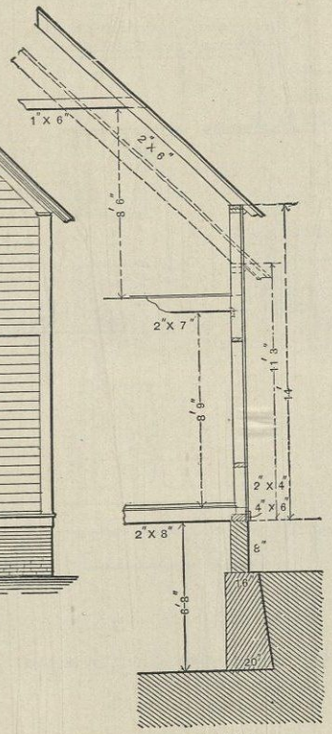
Second Floor.

Scale of Floor Plans, 1-16 Inch to the Foot.

DESIGN NO. 12.



Front Elevation.—Scale, ⅛ Inch to the Foot.

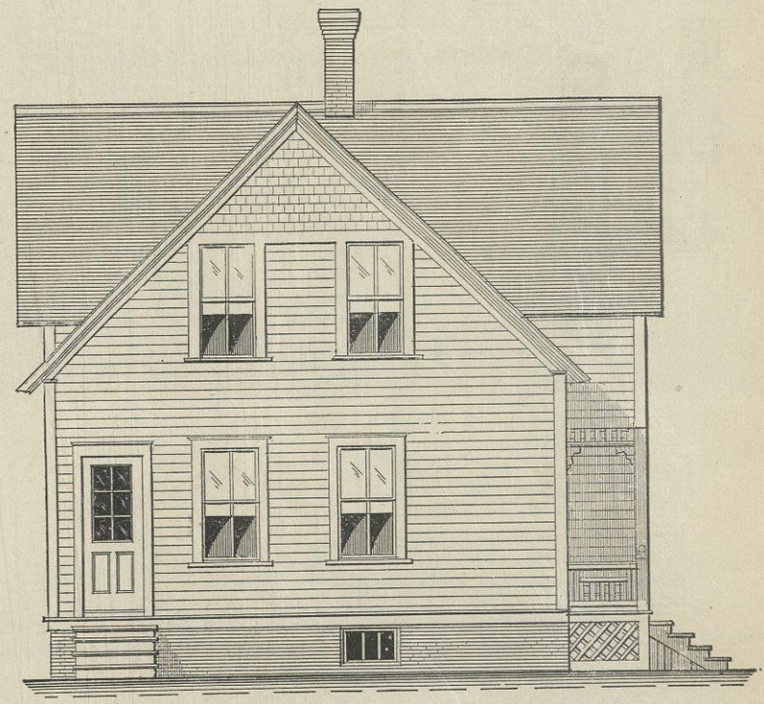


Section.

ARCHITECT:

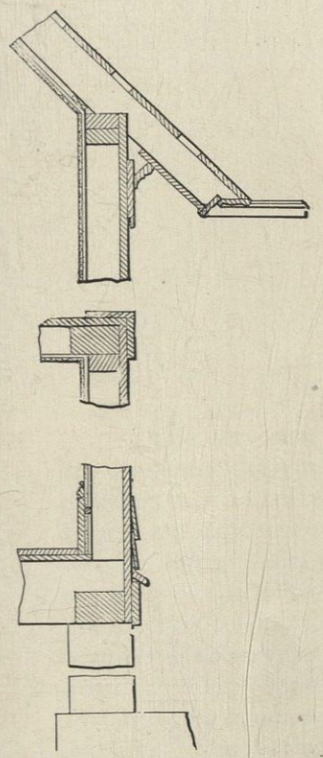
J. P. KINGSTON,

WORCESTER, MASS.

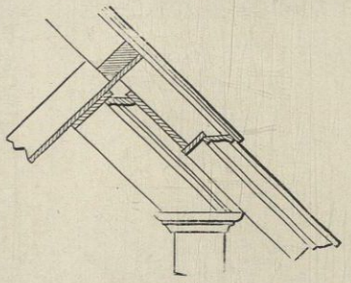


Side (Left) Elevation.—Scale, ⅛ Inch to the Foot.

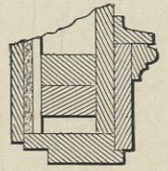
DESIGN NO. 12.



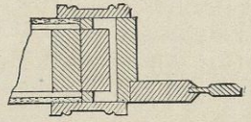
Sections through Wall of Building.—Scale, ½ Inch to the Foot.



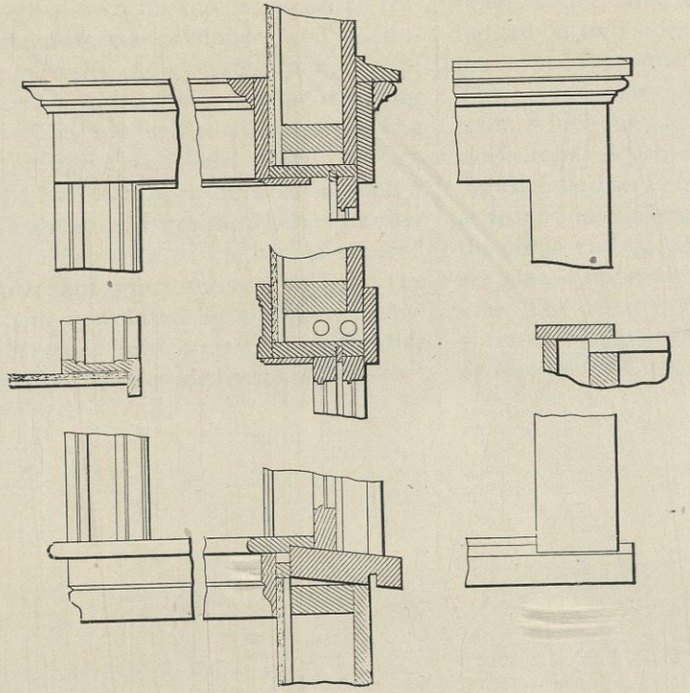
Detail of Gable Cornice.—Scale, ½ Inch to the Foot.



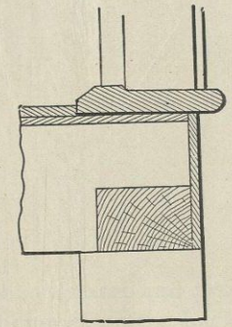
Section through Door Head.—Scale, 1 Inch to the Foot.



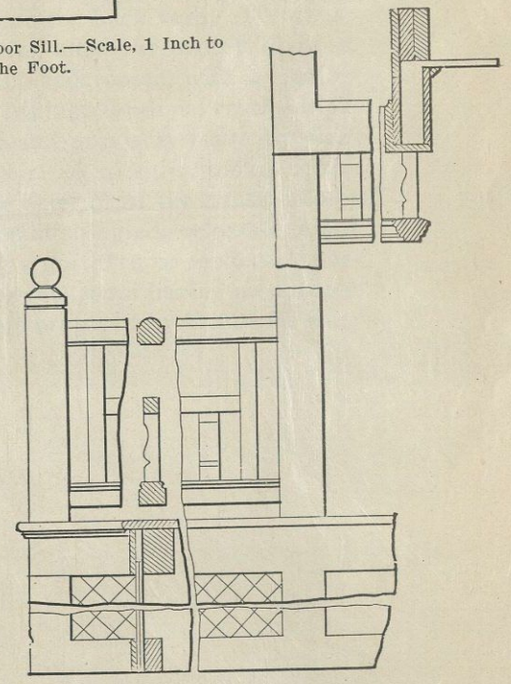
Section through Door Jamb and Panels.—Scale, 1 Inch to the Foot.



Details of Inside and Outside Window Finish.—Scale, 1 Inch to the Foot.



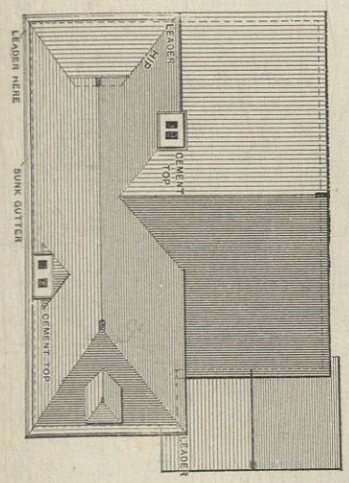
Section through Door Sill.—Scale, 1 Inch to the Foot.



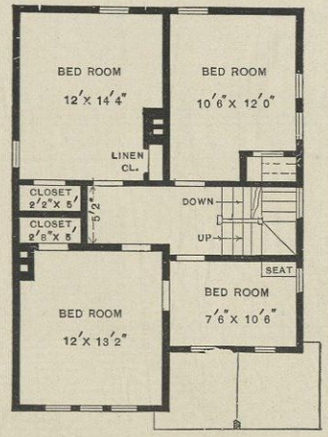
Detail of Porch Finish.—Scale, ½ Inch to the Foot.

DESIGN NO. 13.

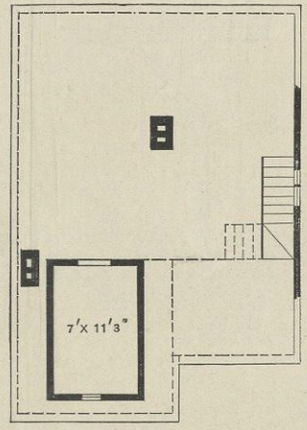
The very neat and attractive cottage shown on the pages which follow has been designed for a family in moderate circumstances and is supposed to face a little west of south, giving a bright and cheerful dining room, a southern exposure to the best chamber, while the kitchen has the morning sun the entire year, yet is protected from the sun in the afternoon. The entrance to the house is from the piazza through a vestibule, which protects the interior from inclement weather. The hall has been finished in such a manner as to serve as a reception room, an entrance from the kitchen having been provided beneath the main stairway. Entrance to the hall is secured through two doors, which shut off all unpleasant odors and sounds from the kitchen. The kitchen pantry is lighted and ventilated by a high window. From the dining room a door opens into a closet, which may be used either as a store closet or china closet. The kitchen is provided with a brick set range, boiler, sink, a two-part washtub, a dresser and provision shelf. It is lighted on two sides and has a door opening into the back yard. The cellar is reached from the kitchen by way of the stairs under the main hall stairs. The second story is arranged for three good sized rooms, with a smaller room, which may be fitted as a bathroom at a trifling additional cost. Ample closet room is provided throughout the house and provision made for placing each bed so as to protect it from drafts of air. A room is finished in the attic, and is well lighted and ventilated. The exterior of the house, except the porch and one gable, is clapboarded instead of shingled. Outside blinds are placed upon all full sized windows having a northern or western exposure. The cellar is divided into three parts, the fuel room having an outdoor entrance to the back yard. The drawings were prepared by C. Powell Karr of New York City.



Roof.



Second Floor.



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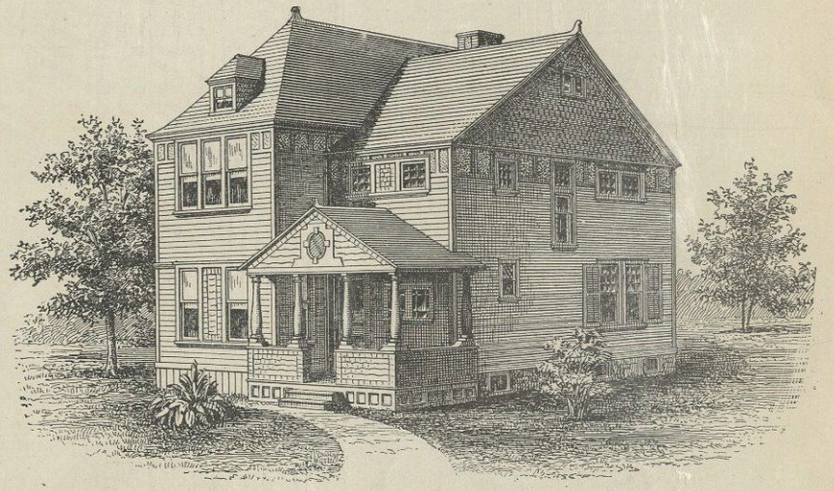
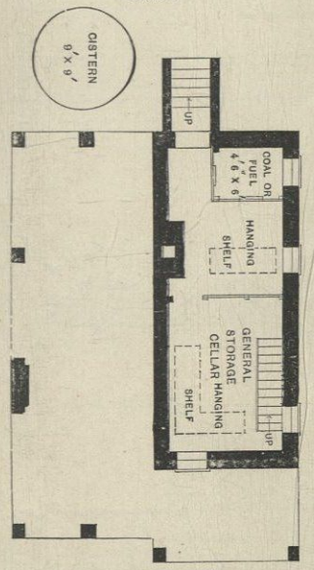
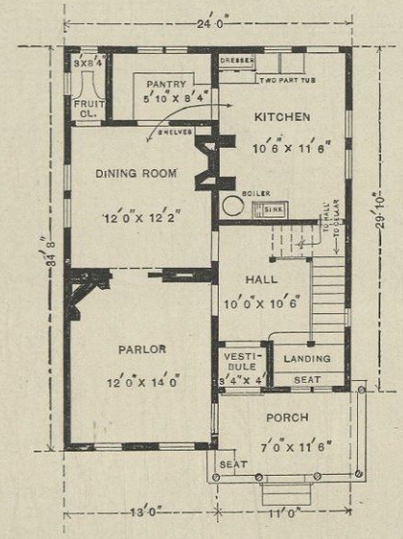


Perspective View.

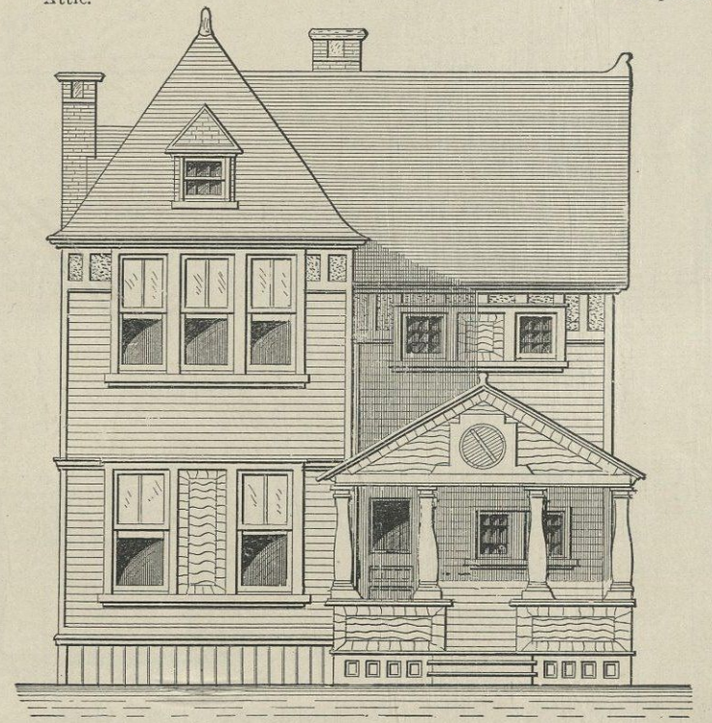


Foundation.



First Floor.

Plans—Scale, 1-16 Inch to the Foot.



Front Elevation.—Scale, ⅛ Inch to the Foot.

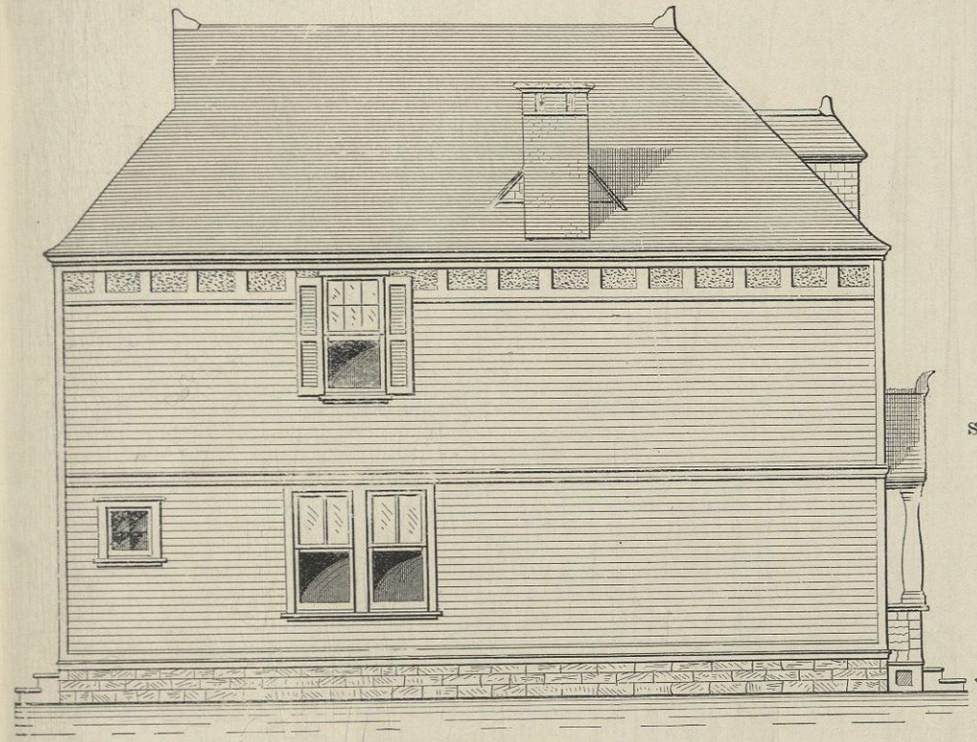
DESIGN NO. 13.

ARCHITECT:

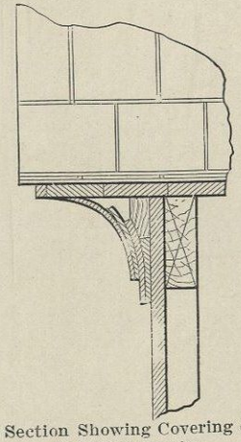
C. POWELL KARR,

NEW YORK.

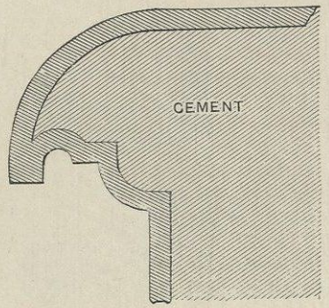
DESIGN NO. 13.



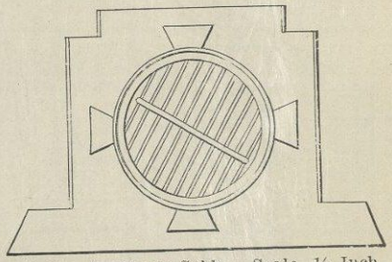
Side (Left) Elevation.—Scale, ⅛ Inch to the Foot.



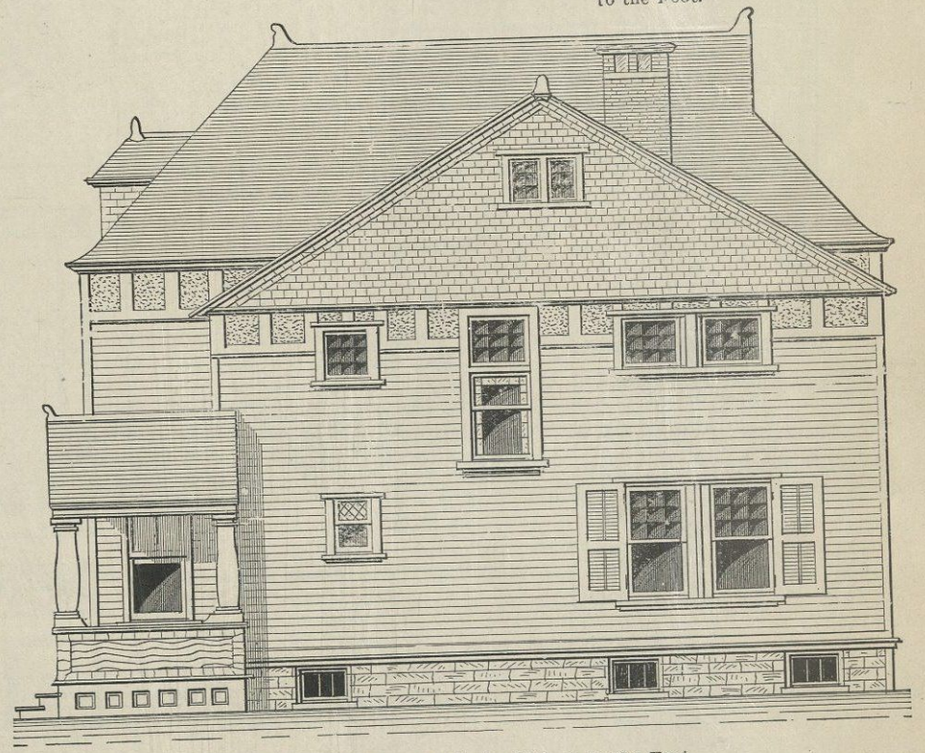
Section Showing Covering of Shingled Cornice.



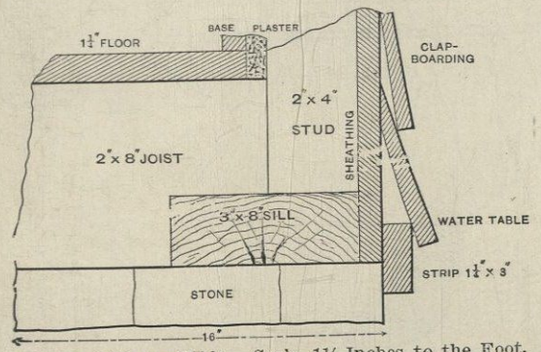
Section of Chimney Cap.—Scale, 3 Inches to the Foot.



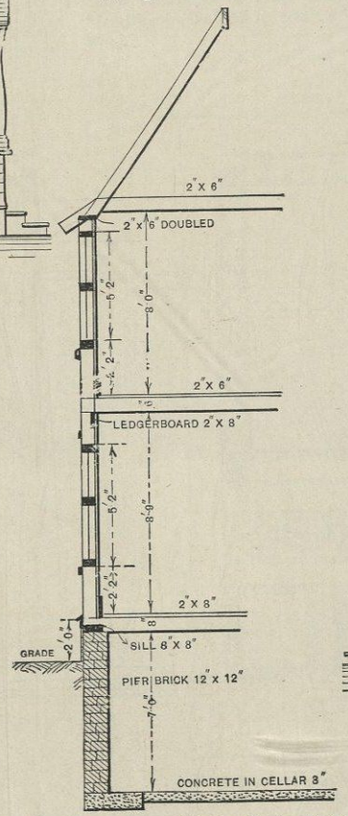
Window in Porch Gable.—Scale, ½ Inch to the Foot.



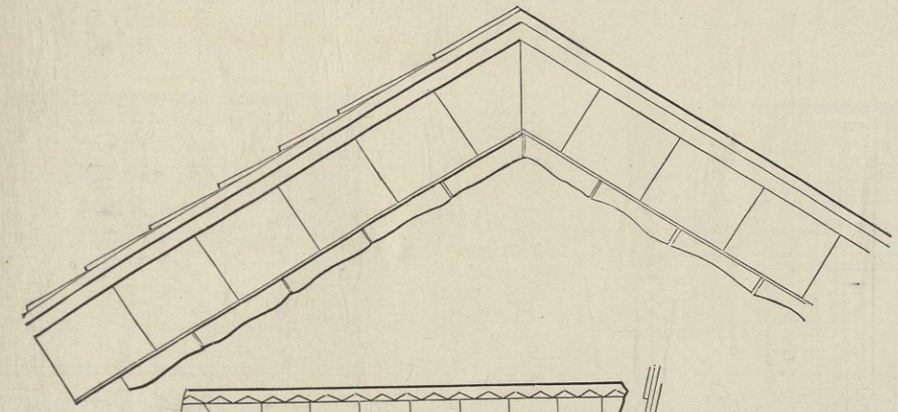
Side (Right) Elevation.—Scale, ⅛ Inch to the Foot.

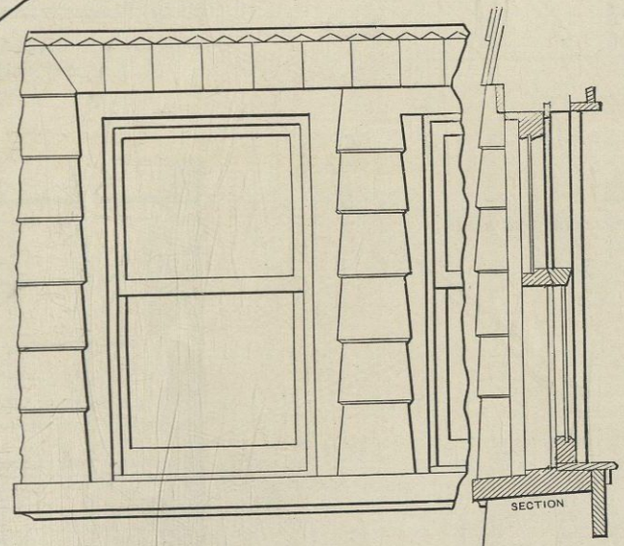


Detail of Water Table.—Scale, 1½ Inches to the Foot.

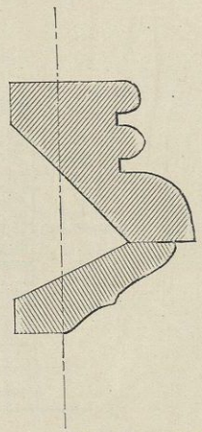


Section of Front Wall.—Scale, ⅛ Inch to the Foot.

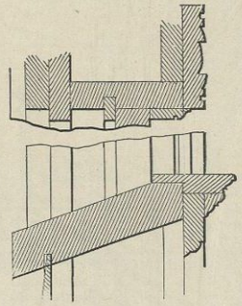




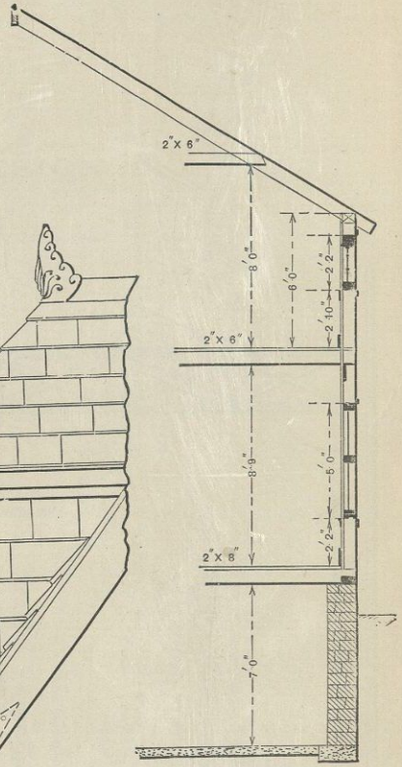
Detail and Section of Window in Wing Gable.—Scale, 1 Inch to the Foot.



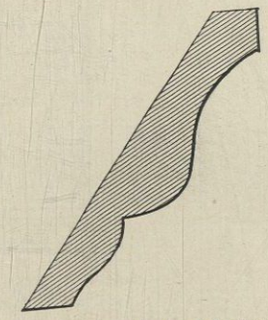
Section of Double String Course Molding.—Scale, 3 Inches to the Foot.



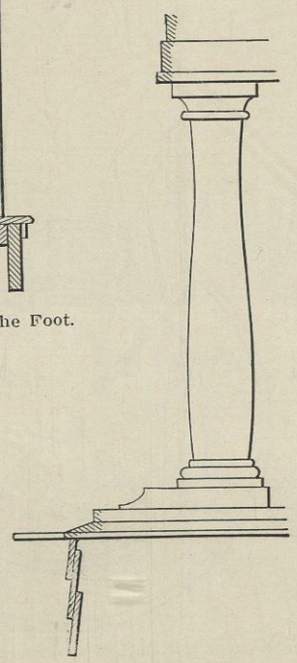
Sections through Window.—Scale, 1½ Inches to the Foot.



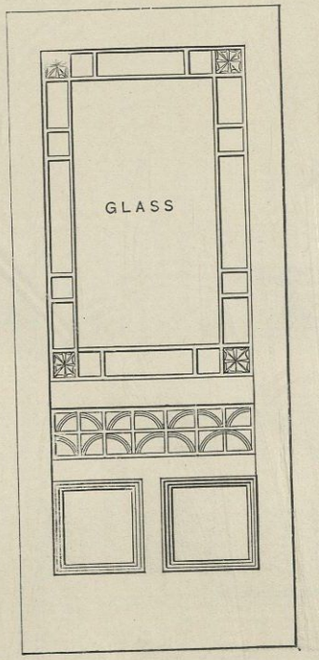
Side Walls.—Scale, ⅛ Inch to the Foot.



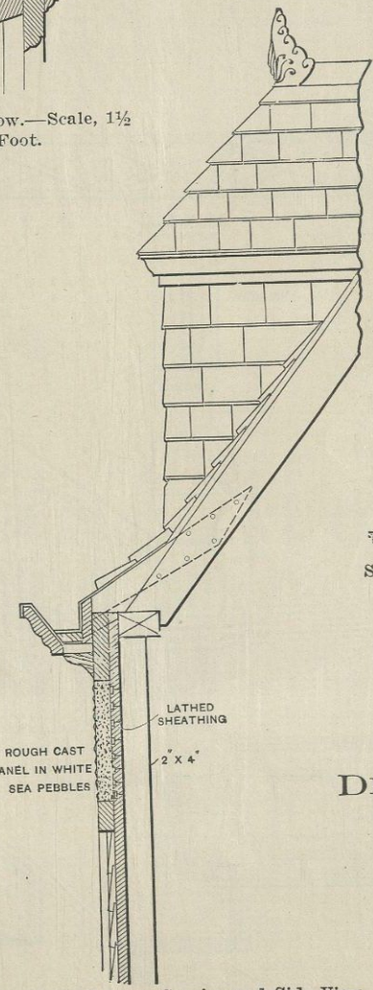
Main Cornice Molding.—Scale, 3 Inches to the Foot.



Porch Column.—Scale, ½ Inch to the Foot.



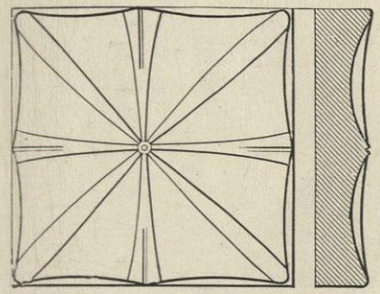
Front Door.—Scale, ½ Inch to the Foot.



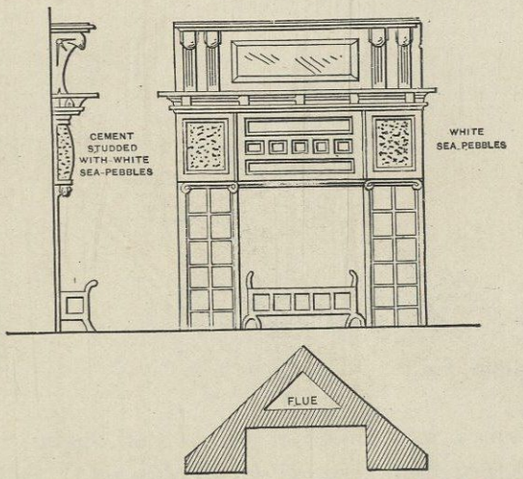
Section through Main Cornice and Side View of Dormer.—Scale, ½ Inch to the Foot.

DESIGN NO. 13.

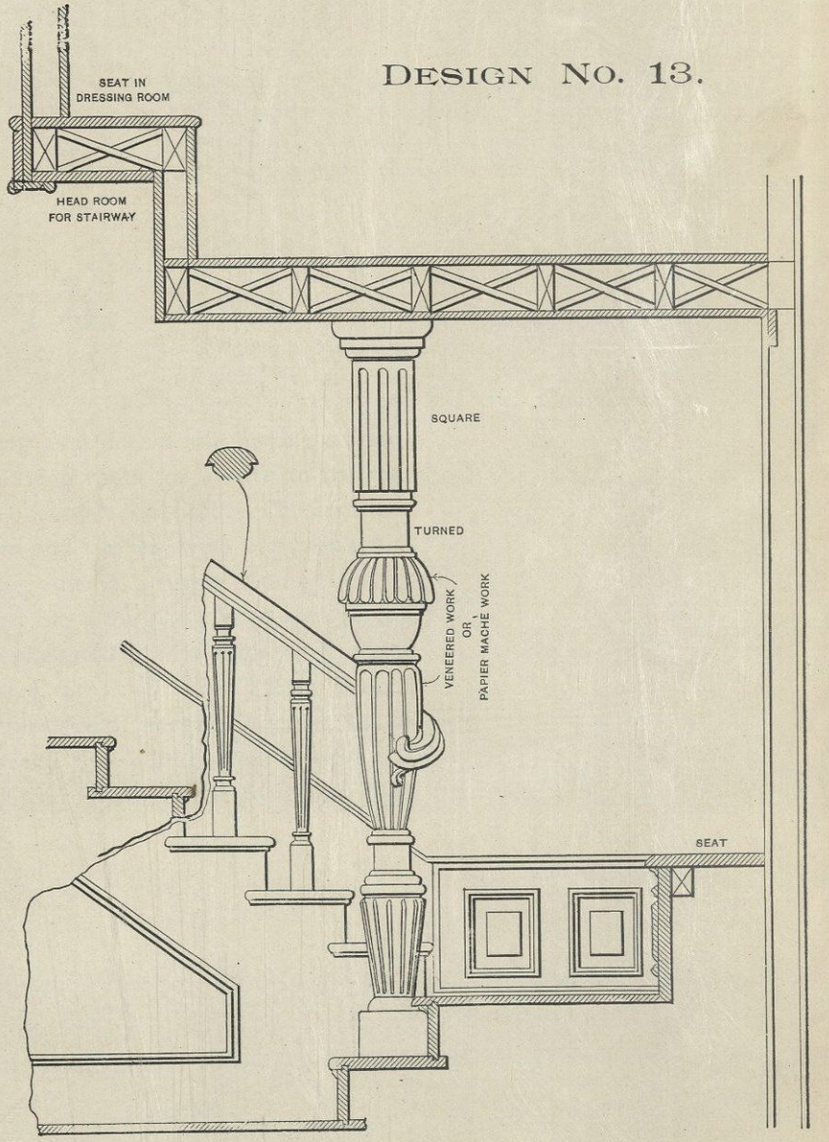
DESIGN NO. 13.



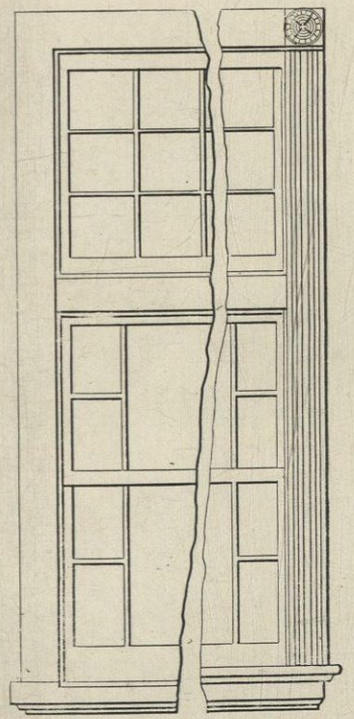
Detail of Corner Block in Front Door.—Half Size.



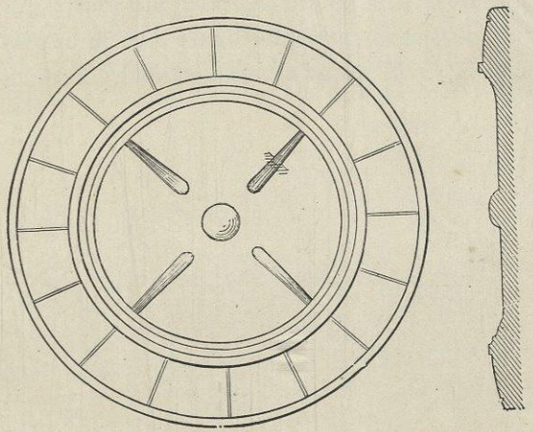
Plan and Elevations of Mantel.—Scale, ¼ Inch to the Foot.



Detail of Main Stairs.—Scale, ½ Inch to the Foot.



Detail Showing Interior and Exterior Finish of Hall Window.—Scale, ½ Inch to the Foot.



Detail of Corner Block in Hall Window.—Half Size.

Design No. 14.

$1,000.

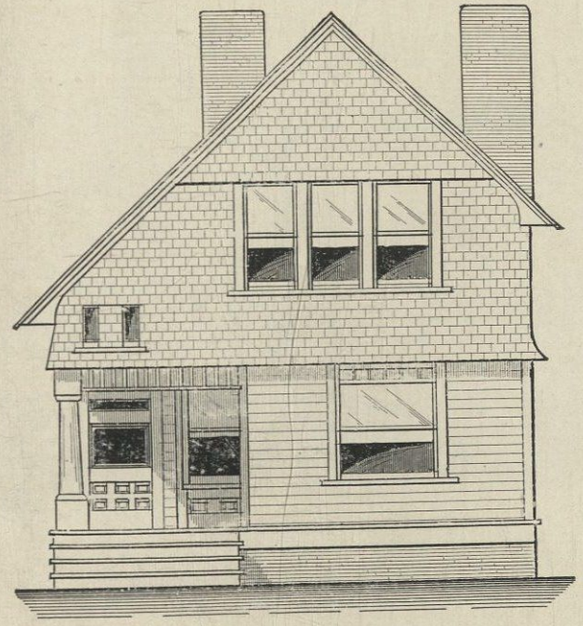
The cottage here shown is adapted for a city lot, occupying as it does a site having a frontage of 25 feet. One side of the house is built to the line, thus leaving room for a path to the rear porch. There is a cellar under the kitchen 12 x 14 feet in size and 6 feet 6 inches high. The first floor is divided into three apartments, consisting of parlor, dining room and kitchen, with the main stairs rising from the central room. Between the parlor and the dining room is a single sliding door, by which the two rooms can be thrown into one if desired. The parlor has a fire place with antique oak mantel. The kitchen is provided with sink and cupboard, and is plastered 3 feet high with Acme cement. On the second floor are two sleeping rooms of good size, provided with ample closets, while opening from the front chamber is a storeroom. The latter is well under the eaves, but is lighted by means of two small windows directly over the front porch. The cottage was erected at a cost of about $1,000 from plans drawn by R. C. Ferguson of Ninth and Olive streets, St. Louis, Mo.

Architect:

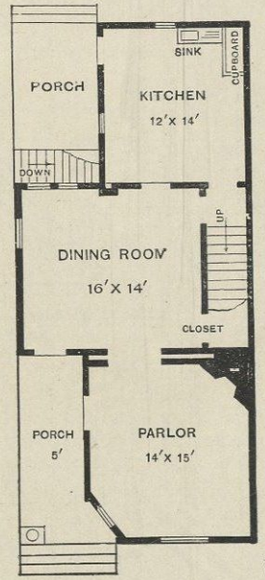
R. C. FERGUSON,

St. Louis, Mo.

Design No. 14.

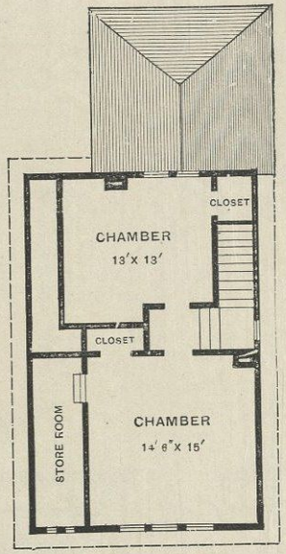


Front Elevation.—Scale ⅛ Inch to the Foot.

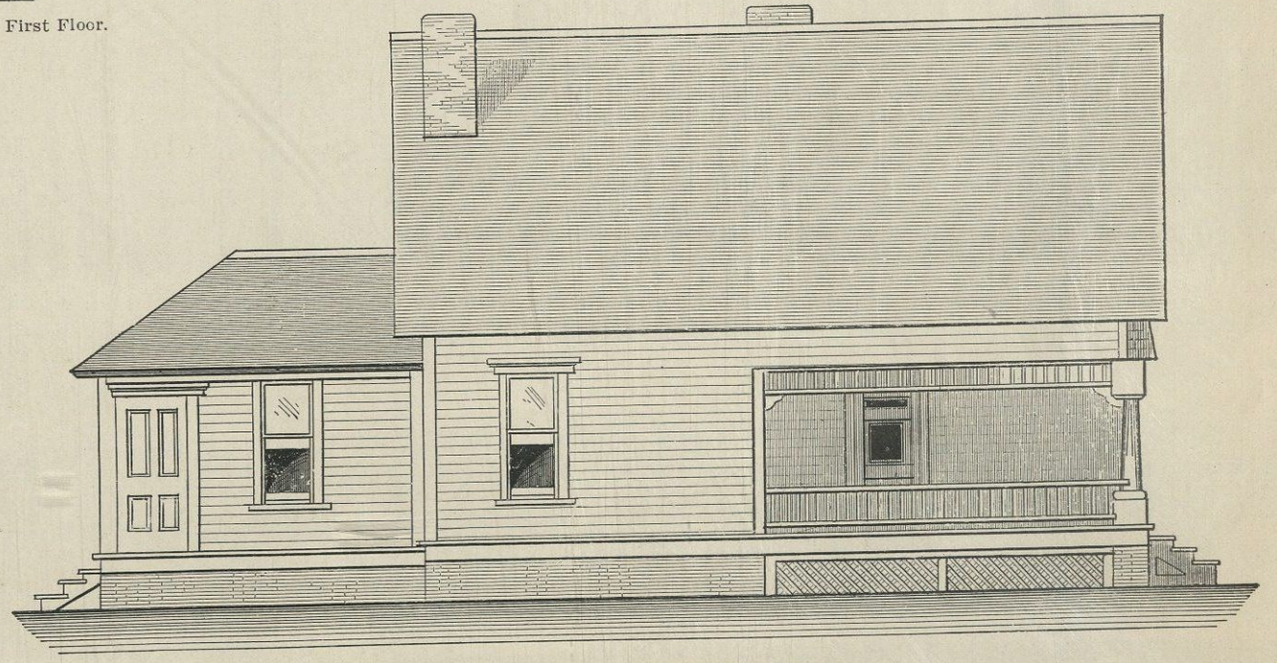


First Floor.

Scale, 1-16 Inch to the Foot.

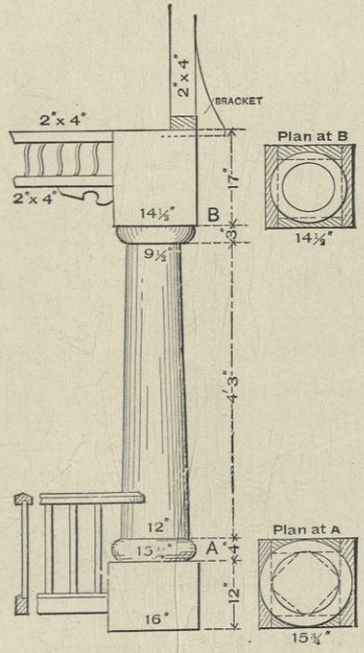


Second Floor.

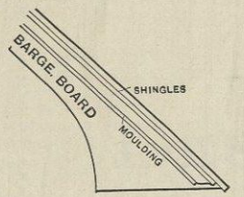


Side (Left) Elevation.—Scale, ⅛ Inch to the Foot.

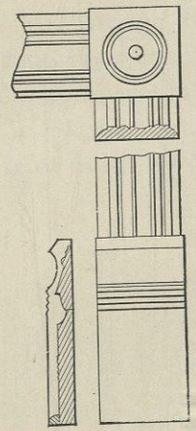
DESIGN NO. 14.



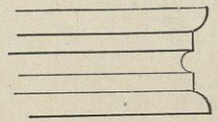
Details of Columns and Balusters.—
Scale, ⅜ Inch to the Foot.



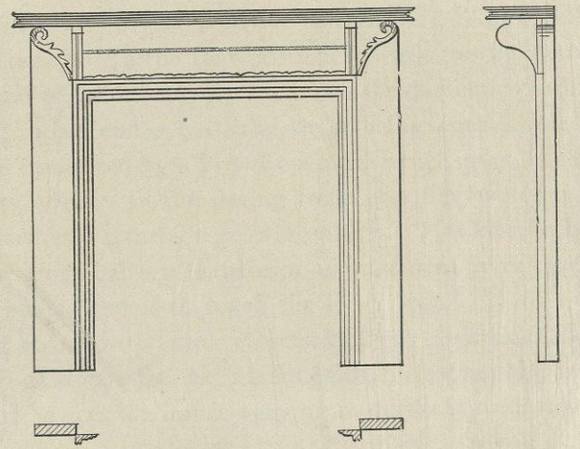
Main Cornice.—Scale, ⅜ Inch to
the Foot.



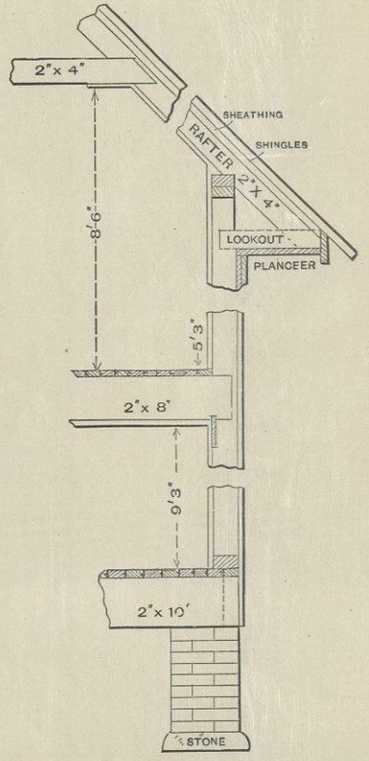
Details of Inside Finish.— Scale,
1 Inch to the Foot.



Detail of Mantel Molding.—
Scale, 6 Inches to the Foot.



Details of Mantel, Showing Plan, Front and End Elevations.—
Scale, ½ Inch to the Foot.



Section through Exterior Wall,
Showing Hight of Stories and
Details of Main Cornice.—
Scale, ⅜ Inch to the Foot.

Suburban ~ Home

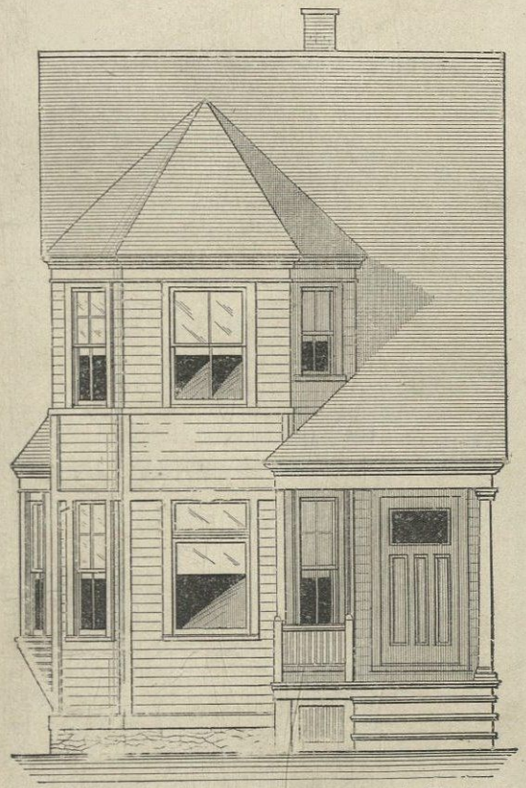
DESIGN NO. 15.

$1,000.

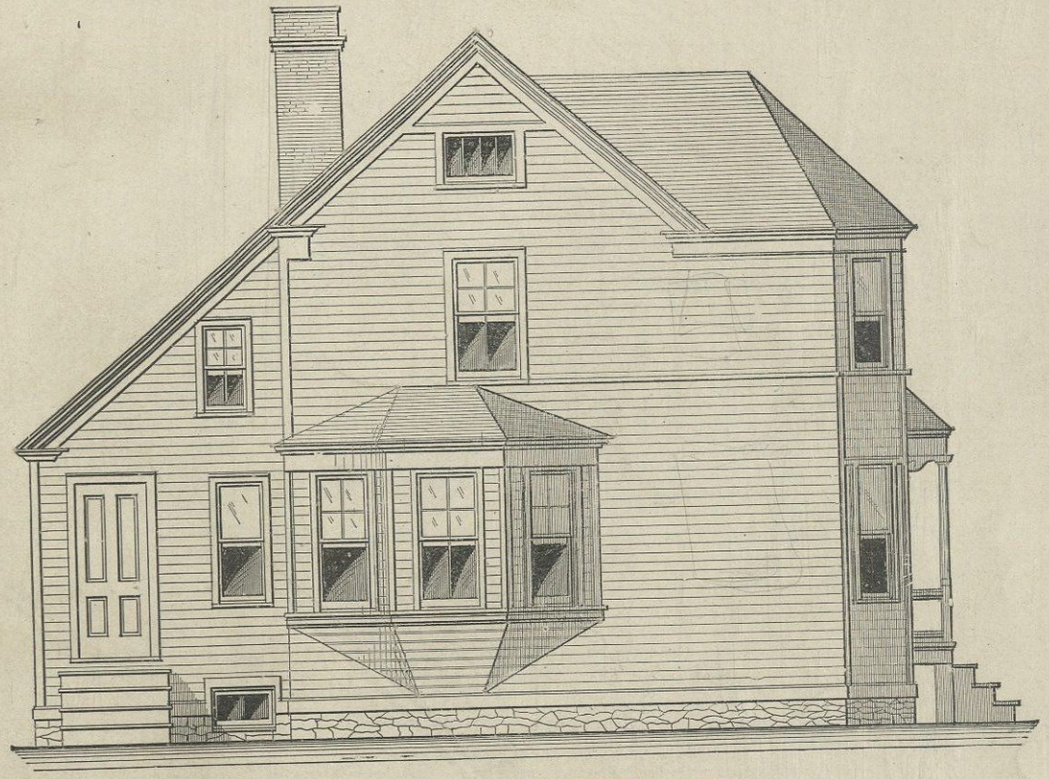
The dwelling here shown has been designed for erection on a plot of ground having a frontage of 25 feet, and is adapted for either the city or suburbs, as circumstances may demand. It is of neat exterior, and the rooms upon the two floors are arranged with a view to economy of space, while affording convenient accommodations. The cellar does not extend under the entire building, but its excavation is sufficient to give all the room necessary. In the rear portion beneath the kitchen is a cistern having a capacity of about 25 barrels, from which water may be drawn for domestic purposes.

Upon the first floor of the house are three rooms and a hall, the latter being entered directly from the porch. The parlor and dining room are connected by a broad opening, which may be closed with *portières* in such a way as to produce a pretty effect. In the dining room is a bay window provided with a seat, which may be utilized if desired as a stand for growing plants. The kitchen occupies the rear, but can be reached directly from the front hall—a feature of arrangement which avoids the necessity of passing through any of the principal rooms to reach the front door.

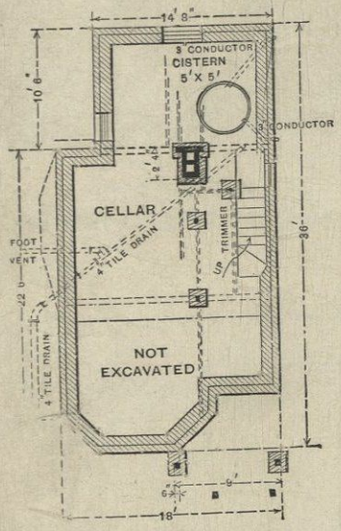
Upon the second floor are three sleeping rooms with ample closets, while in the attic is a good sized storeroom. The architect, John R. Church of Rochester, N. Y., states that the building can be erected in his section of the country for about $1,000, the figure varying in different localities and according to the style of finish employed.



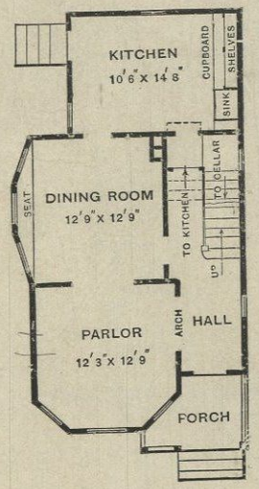
Front Elevation.—Scale, ⅛ Inch to the Foot.



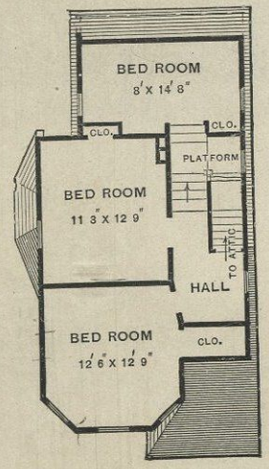
Side (Left) Elevation.—Scale, ⅛ Inch to the Foot.



Foundation.

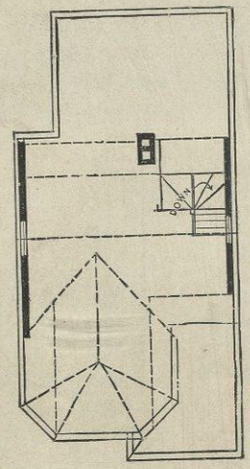


First Floor.



Second Floor.

Scale, 1-16 Inch to the Foot.



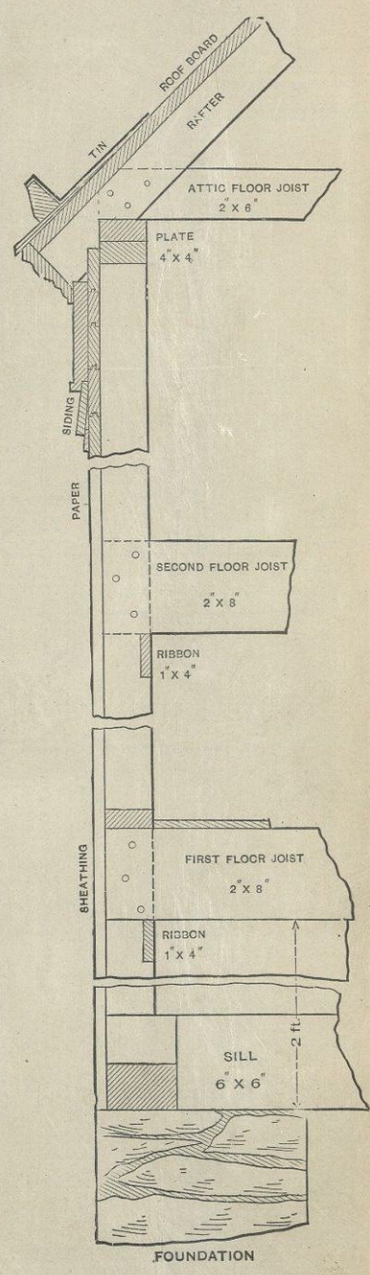
Attic.

DESIGN NO. 15.

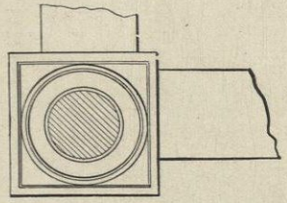
ARCHITECT:

JOHN R. CHURCH,

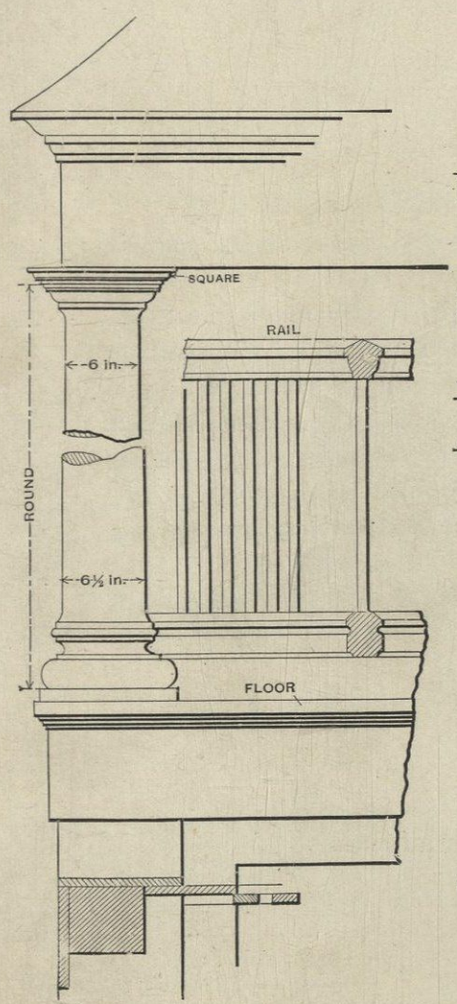
ROCHESTER, N. Y.



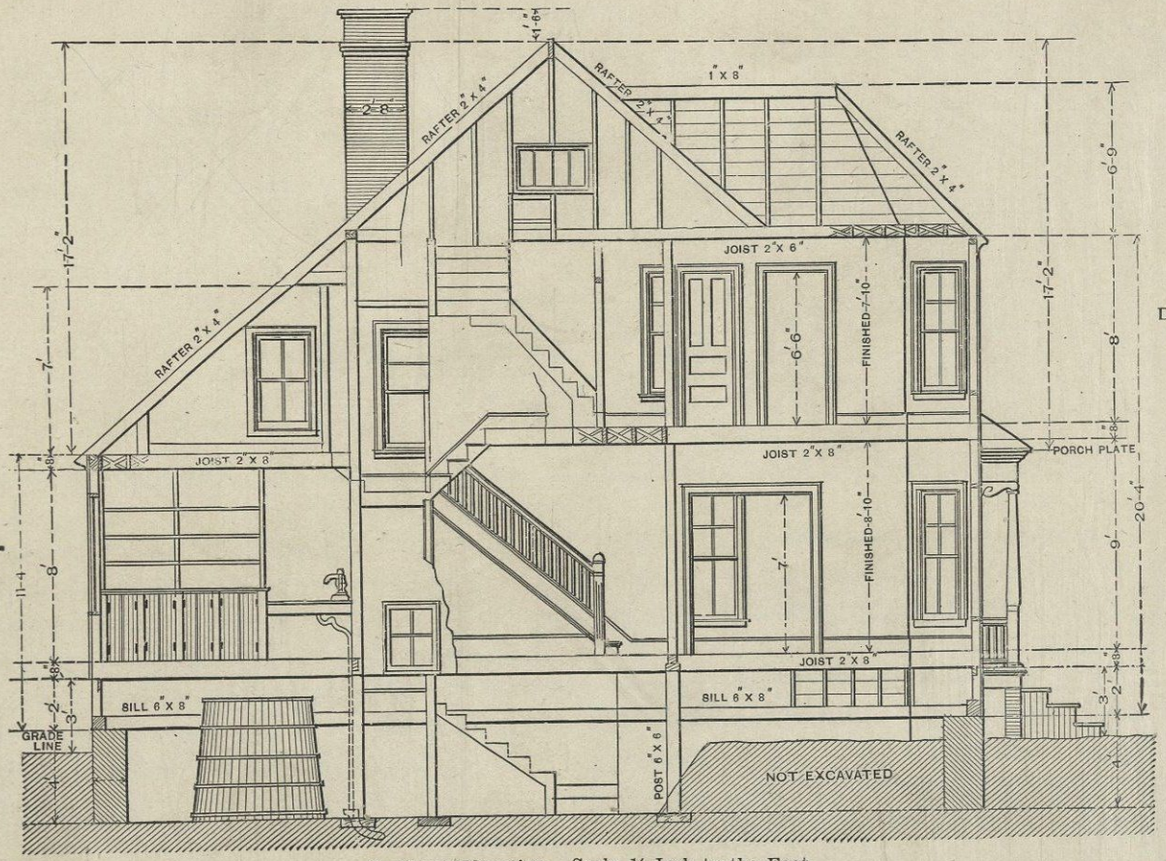
Detail of Main Cornice and Section through Frame.—Scale, ¾ Inch to the Foot.



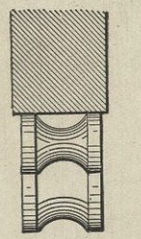
Plan of Cap.—Scale, ¾ Inch to the Foot.



Details of Porch.—Scale, ¾ Inch to the Foot.



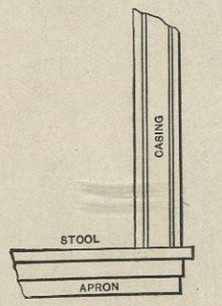
Sectional Elevation.—Scale, ⅛ Inch to the Foot.



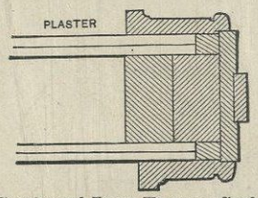
Face of Porch Bracket.—Scale, ¾ Inch to the Foot.

DESIGN

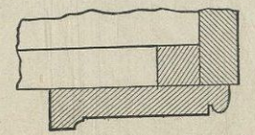
No. 15.



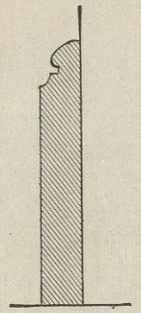
Detail of Window Finish.—Scale, ¾ Inch to the Foot.



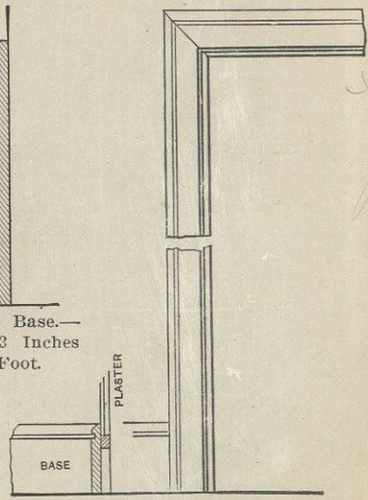
Section of Door Frame.—Scale, 1½ inches to the Foot.



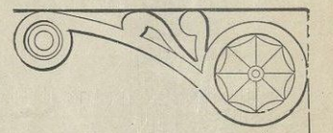
Section of Casing.—Scale, 3 Inches to the Foot.



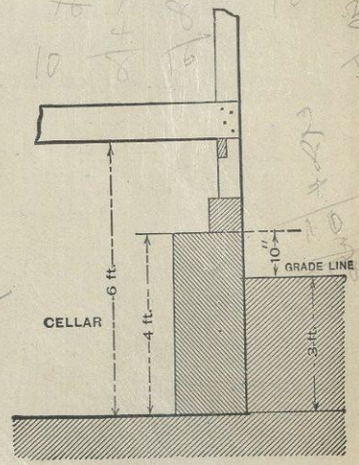
Detail of Base.—Scale, 3 Inches to the Foot.



Details of Door Finish.—Scale, ¾ Inch the Foot.



Side of Porch Bracket.—Scale, ¾ Inch to the Foot.



Section of Foundation Wall.—Scale, ¼ Inch to the Foot.

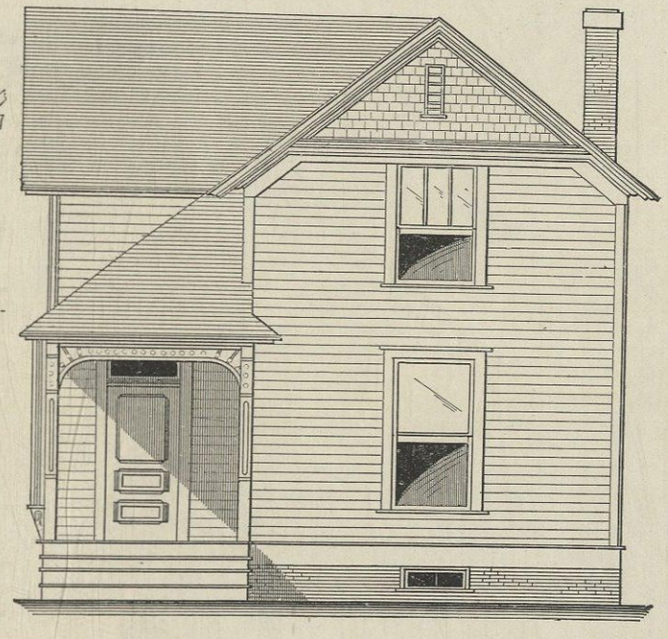
Design No. 16.

$1,000

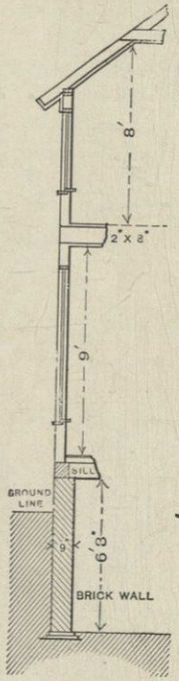
This design provides for six rooms conveniently disposed and an exterior which is neat but inexpensive. It secured a prize in one of the competitions for $1,000 houses conducted by *Carpentry and Building*, and shows an arrangement of rooms well adapted for a family of small size. On the first floor is a hall of sufficient capacity to contain a part of the stairs and leave ample room for passing to the dining room and also to the parlor. These rooms are of good size, as is also the kitchen. The pantry and cellar are convenient to the kitchen, and of ample dimensions for the purpose. The second floor has three sleeping rooms, each well lighted and ventilated, and opening from which is a closet.

The material specified in the construction of this house includes sills 6 x 6 inches; first-floor joist, 2 x 10 inches; second-floor, 2 x 8 inches; studding and rafters, 2 x 4 inches, and plates, 4 x 4 inches. The studding at the corners and openings is to be doubled, while the joists, studding and rafters are to be placed 16 inches from centers. The framing timbers are to be of yellow pine and each of its kind to be sized to equal width. The outside walls of the building, except the gables, are intended to be covered with cypress drop siding, with close fitting joints. The gables are to be covered with sawed cypress shingles, laid 5 inches to the weather. The porch columns and balusters are to be of poplar, while the porch floor is to be of yellow pine laid in white lead. The roof of the cottage is to be covered with cypress shingles, laid 4½ inches to the weather. The parlor and hall are to be finished in yellow pine, with molded casings and base, with head and plinth blocks, the other finish throughout the house being plain. The newel post, rail and balusters of the main stairs are to be of oak. The cost of the house is $1,000, the author of the design being C. W. Tetwiler of Poplar Bluff, Mo.

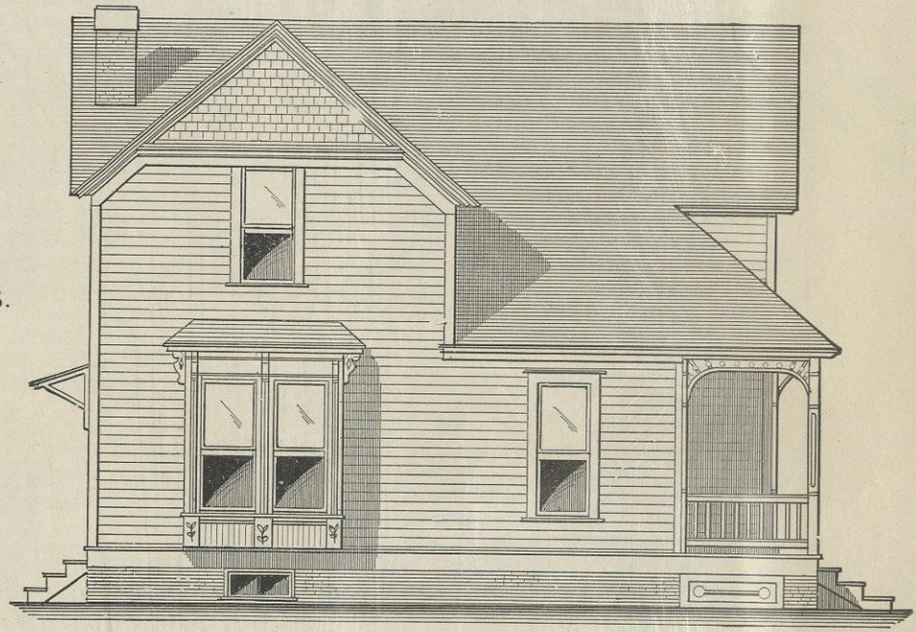
DESIGN NO. 16.



Front Elevation.—Scale, ⅛ Inch to the Foot.

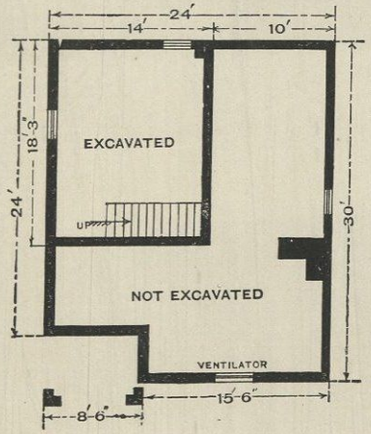


Section.

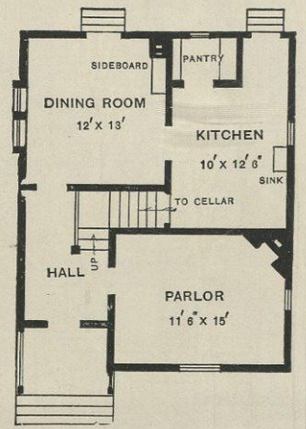


Side (Left) Elevation.—Scale, ⅛ Inch to the Foot.

COST, $1,000.

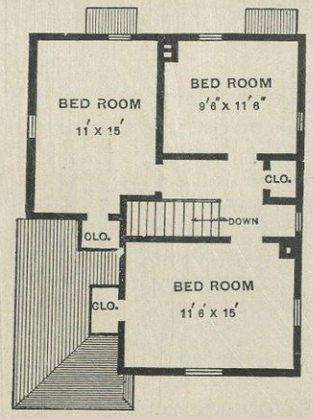


Foundation.



First Floor.

Scale, 1-16 Inch to the Foot.



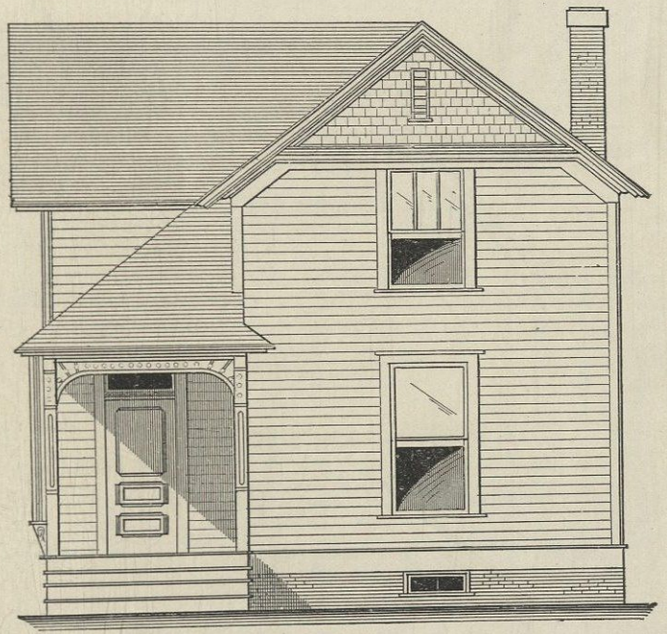
Second Floor.

ARCHITECT:

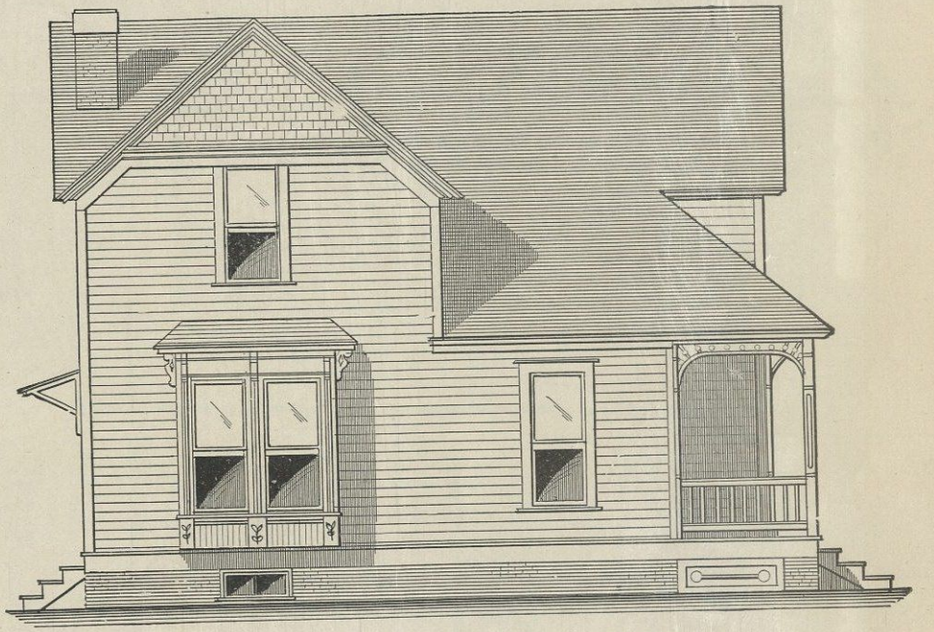
C. W. TETWILER,

POPLAR BLUFF, MO.

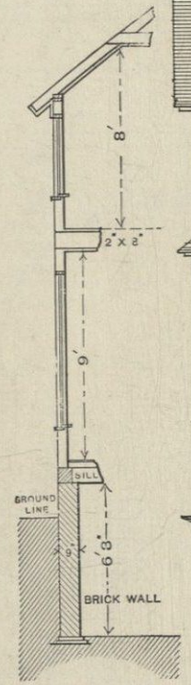
DESIGN NO. 16.



Front Elevation.—Scale, ⅛ Inch to the Foot.

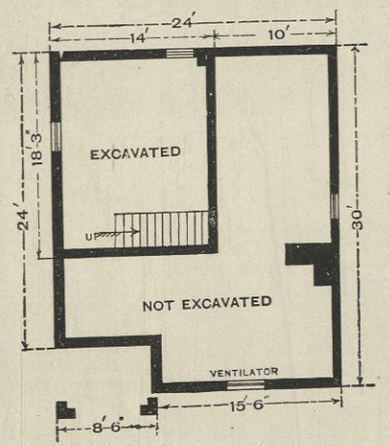


Side (Left) Elevation.—Scale, ⅛ Inch to the Foot.

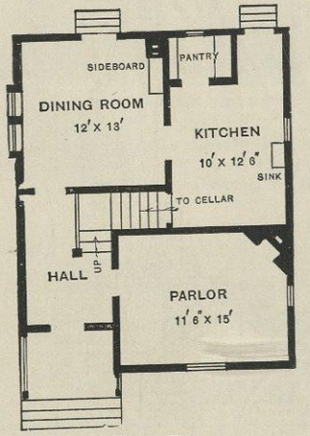


Section.

COST, $1,000.

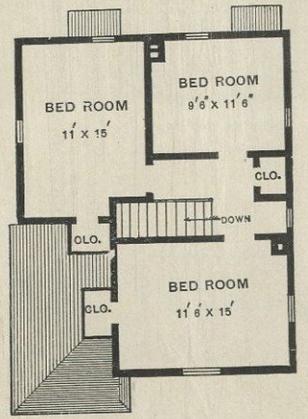


Foundation.



First Floor.

Scale, 1-16 Inch to the Foot.

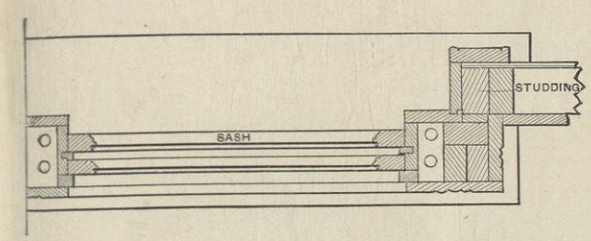


Second Floor.

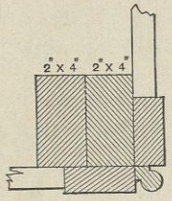
ARCHITECT:

C. W. TETWILER,

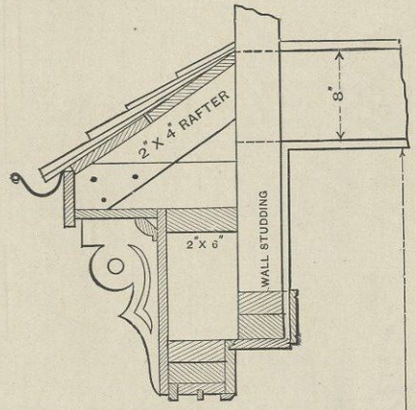
POPLAR BLUFF, MO.

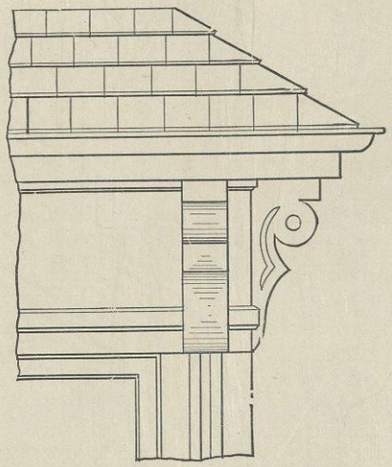


Cross Section of Recessed Window.—Scale, ¾ Inch to the Foot.

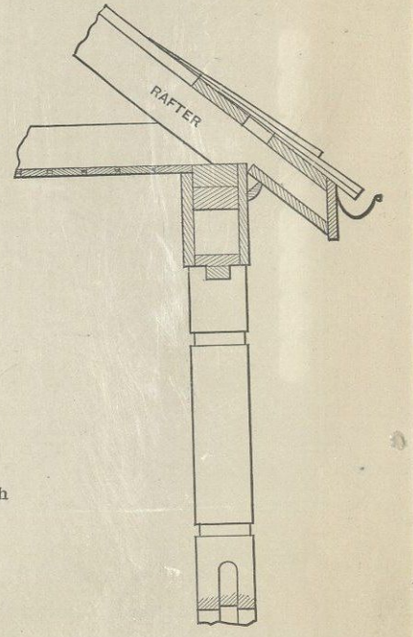


Detail of Corner Boards.—Scale, 1½ Inches to the Foot.

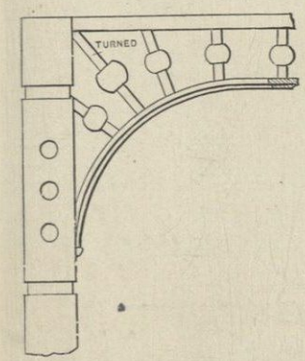


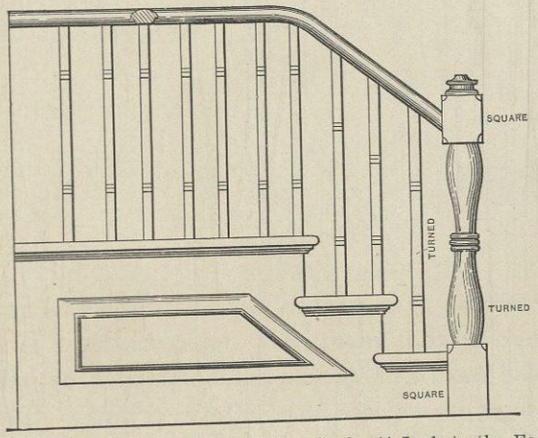


Details of Recessed Window.—Scale, ¾ Inch to the Foot.

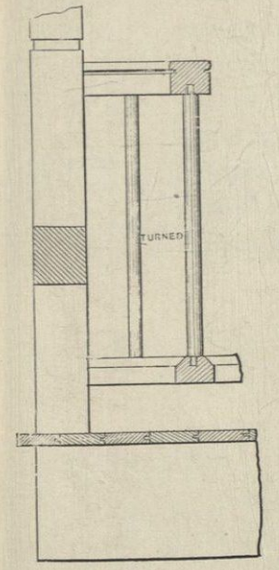


Details of Porch Cornice and Columns, —Scale, ¾ Inch to the Foot.

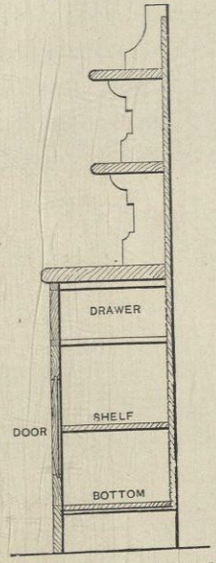




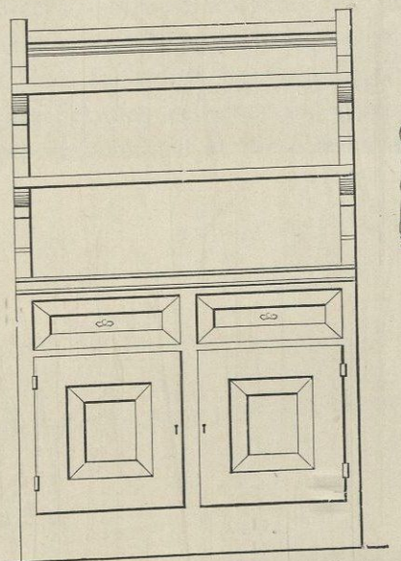
Elevation of Stairs in Main Hall.—Scale, ½ Inch to the Foot.



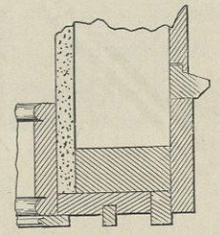
Details of Front Porch.—Scale ¾ Inch to the Foot.

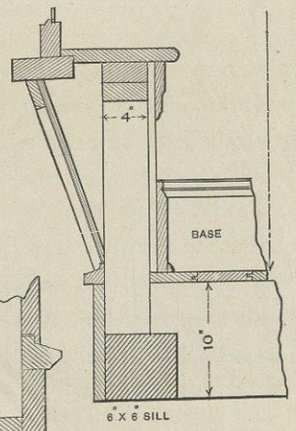


Vertical Section through Sideboard. — Scale, ½ Inch to the Foot.

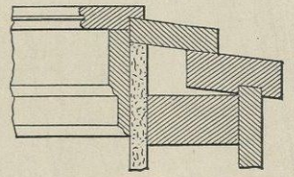


Front Elevation of Sideboard.—Scale, ½ Inch to the Foot.

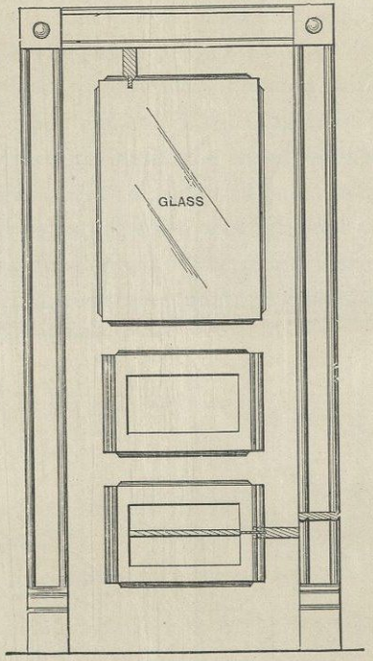




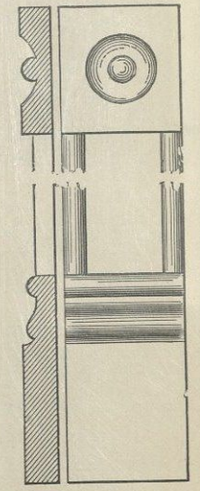
Details of Water Table and Main Cornice.—Scale, ¾ Inch to the Foot.



Cross Sections of Window Head and Sill.—Scale, 1½ Inches to the Foot.



Details of Front Door and Trim.—Scale, ½ Inch to the Foot.



Details of Head and Plinth Blocks.—Scale, 1½ Inches to the Foot.

DESIGN NO. 16.

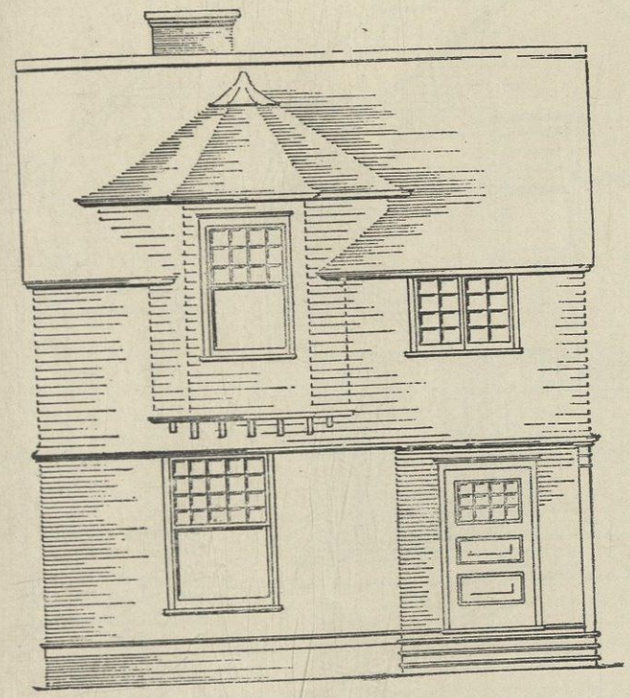
Design No. 17.

$1,100.

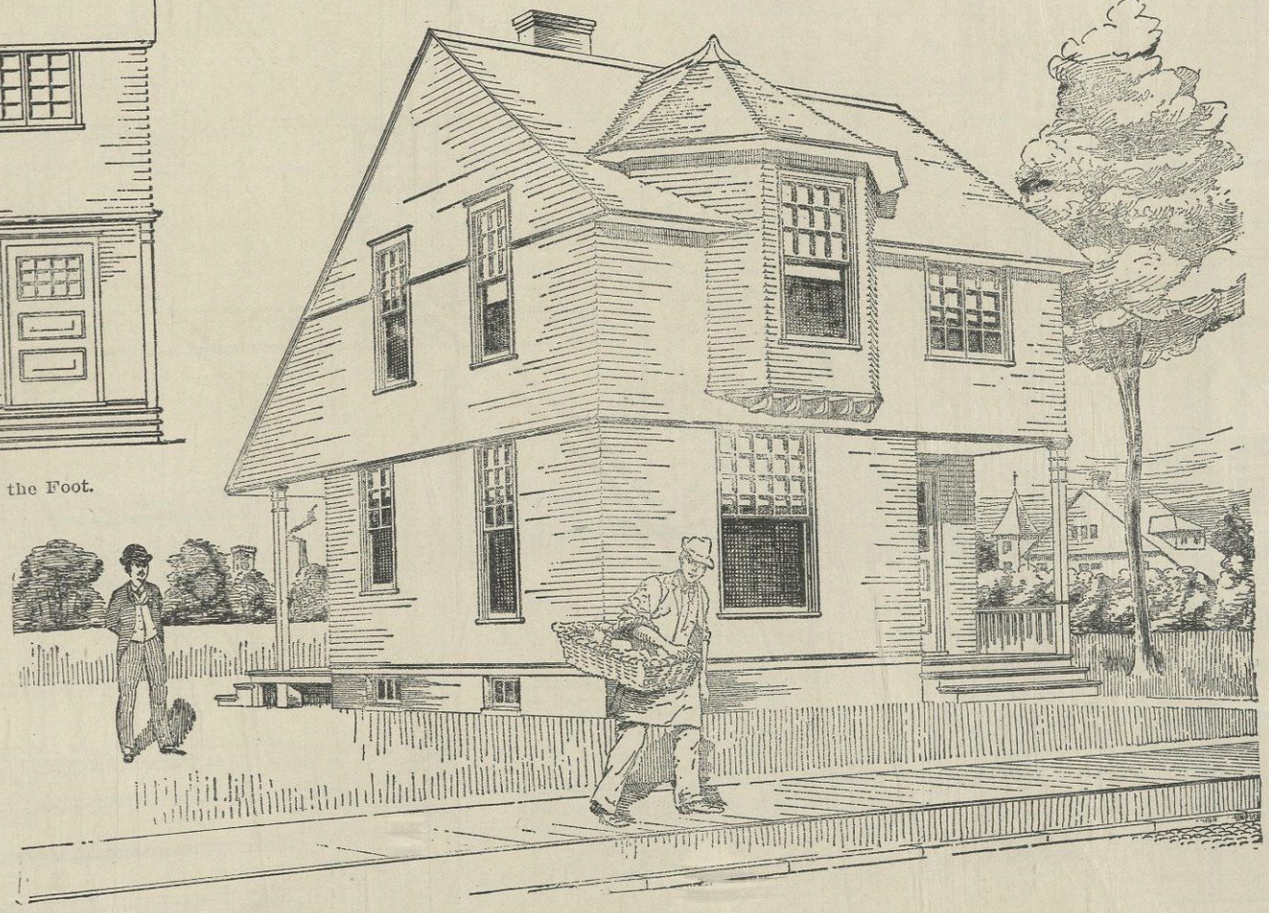
This two-story frame cottage has an attractive exterior and is well adapted for erection on a suburban lot. The plans show two rooms on the main floor in addition to a commodious pantry and front hall, the latter measuring 7½ x 7 feet. From it rise the main stairs, with upper landing in the center of the house, rendering access convenient to the three sleeping rooms on that floor. The architect's specifications state that the sills are 4 x 8 inches; girders, 6 x 8 inches; joists, 2 x 10 inches, 16 inches between centers; rafters, 2 x 6 inches and 24 inches between centers; ceiling joists, 2 x 6 inches and 24 inches between centers; and studding, 2 x 4 inches and 16 inches between centers, doubled at the corners and at each side of doors and windows. The porch joists are 2 x 8 inches and 16 inches between centers, while the plates are 2 x 4 inches doubled. The side walls and roof above first-floor windows are covered with shingles laid 5 inches to the weather with joints broken. The shingles of the side walls are stained with Cabot's best creosote stain, the siding and all other exterior wood work, except the roof, receives two coats of paint, while the front door and the hardwood work of stairs are filled and finished with two coats of hard oil varnish rubbed to a dead finish. The plans were drawn by F. M. Snyder of Chicago, Ill., who places the estimate of cost somewhat in excess of $1,000 for the structure complete.

DESIGN NO. 17.

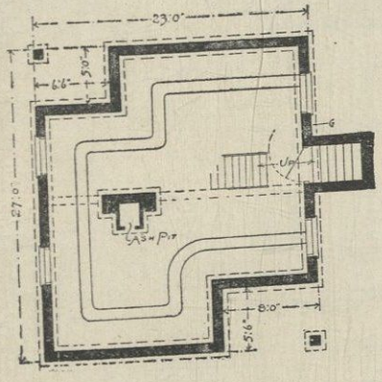
ARCHITECT:
FRANK M. SNYDER,
CHICAGO, ILL.



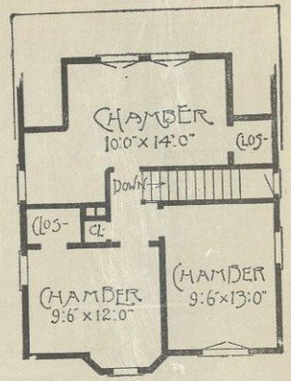
Front Elevation.—Scale, ⅛ Inch to the Foot.



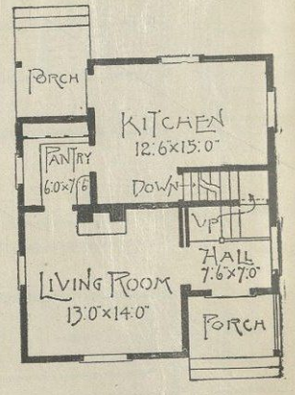
Perspective View.



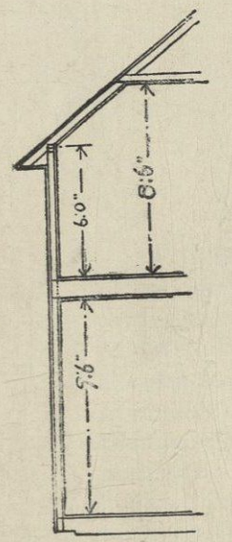
Foundation.—Scale, 1-16 Inch to the Foot.



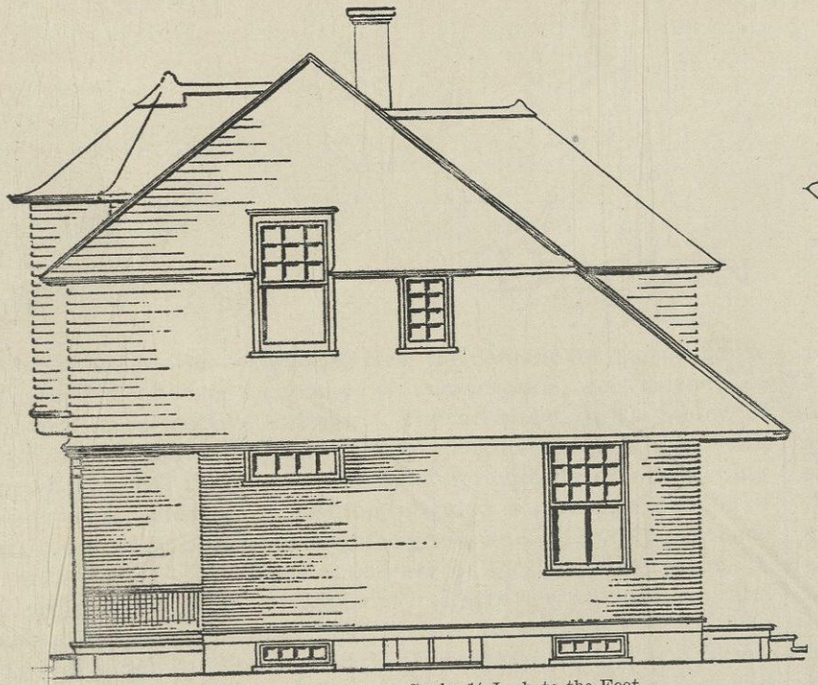
Second Floor.—Scale, 1-16 Inch to the Foot.



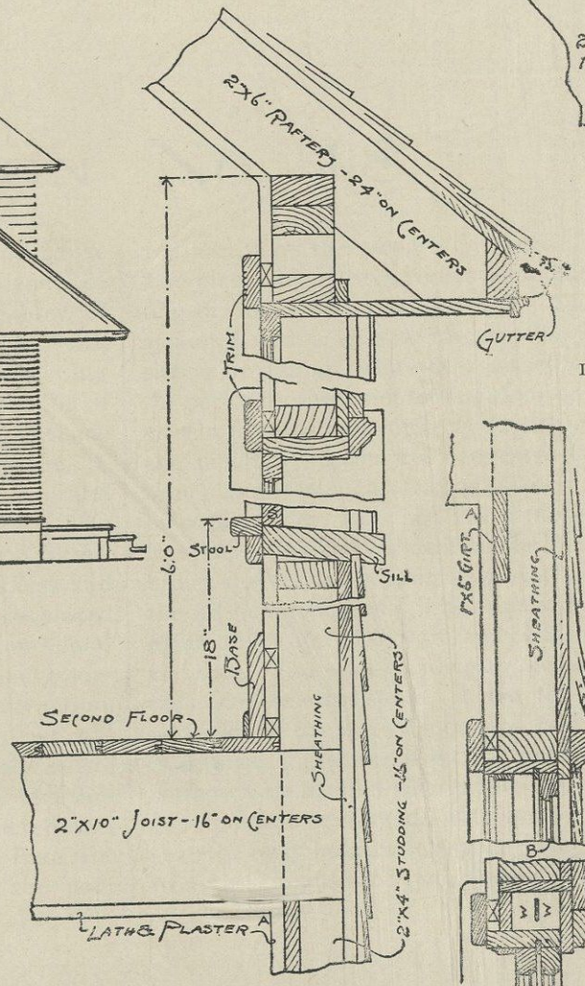
First Floor.—Scale, 1-16 Inch to the Foot.



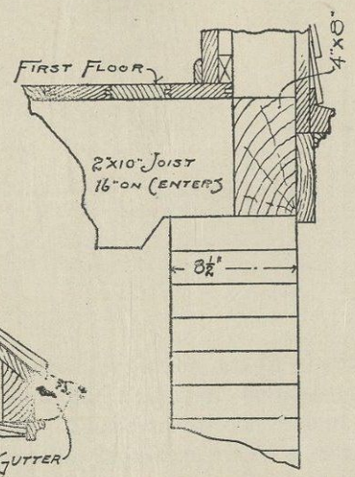
Sectional View Giving Story Hights.—Scale, ⅛ Inch to the Foot.



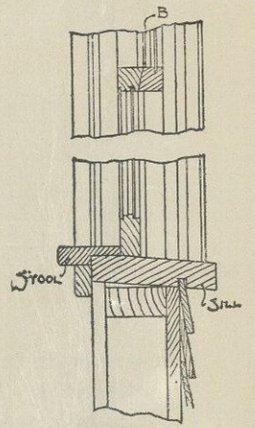
Side (Right) Elevation.—Scale, ⅛ Inch to the Foot.



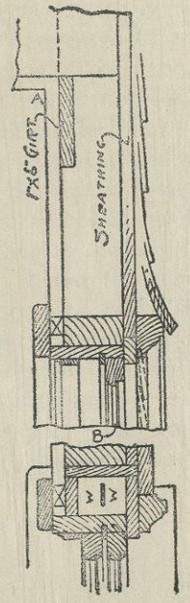
Detail of Main Cornice and Section of Second Floor.—Scale, 1 Inch to the Foot.



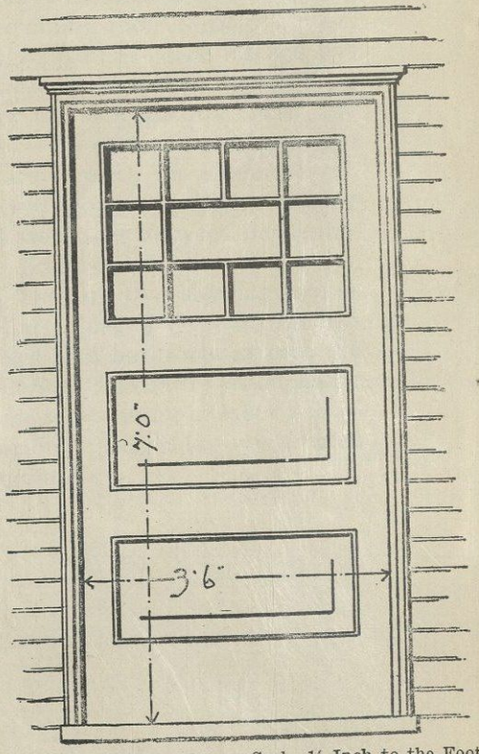
Detail of Water Table.—Scale, 1 Inch to the Foot.



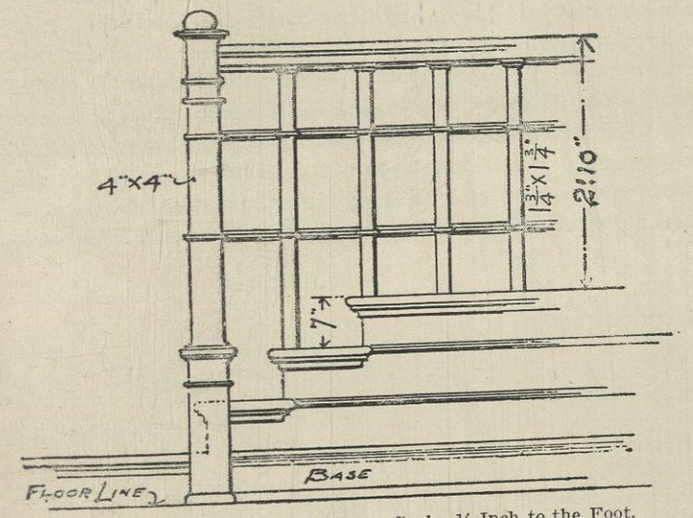
Section through Window Frame.—Scale, 1 Inch to the Foot.



Belt Course and Section of Box Frame.—Scale 1 Inch to the Foot.



Elevation of Front Door.—Scale, ½ Inch to the Foot.

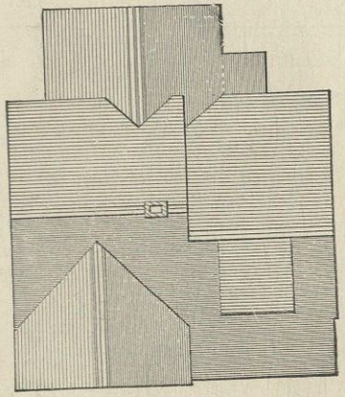


Elevation of Stair Post and Rail.—Scale, ½ Inch to the Foot.

DESIGN NO. 17.

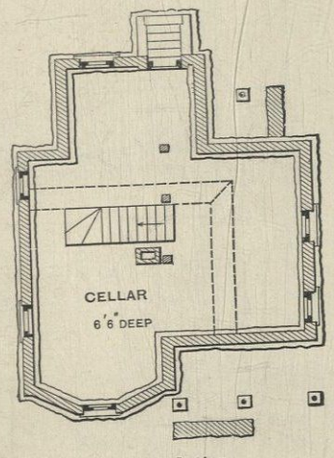
Design No. 18.

This neat cottage was designed to meet the demand for a small house of moderate cost combining economy of construction, convenience of arrangement and an attractive exterior. The architect, J. D. Sibley of Middletown, Conn., has intended that the house shall stand upon a lot with a width somewhat greater than that of the building, with the ground sloping gradually away on all sides. The position intended is such that the sills of the house are about 2 feet 2 inches above the grade line. The cellar extends under the entire house. The foundations are of local building stone, 16 inches thick, projecting 4 inches outside and inside of the underpinning and built up from 3 inches below the cellar bottom to the grade line. The underpinning is of 8-inch hard burned brick. The cottage is of balloon frame, sheeted with good square edged stuff, surfaced to a uniform thickness and laid with close joints edge to edge. Over the sheeting boards is placed building paper, and this in turn is covered with weather boarding and shingles. The roof is covered with shingles. The veranda and hood roof are continuous with the main roof, this plan resulting in economy of construction, while giving attractiveness of design and at the same time preventing troublesome leaks. The single chimney, which is made to answer for the entire house, has an extra large flue pierced on the first floor for the parlor and dining room. The kitchen stove connects with it by means of pipe, which passes through the attic floor, through the partition between the attic and the stairway and above the landing. Where the pipe passes through the floor and partitions the wood is protected by double tin or sheet iron thimbles. The plans show three rooms upon the first floor, consisting of parlor, sitting or dining room and kitchen. These are of convenient shape, and are arranged with a view to meeting the requirements of a small family. The sitting or dining room opens directly from the veranda and connects with the parlor by means of folding door or *portières*. The kitchen is in an extension in the rear and connects directly with the dining room through a door, and indirectly through a conveniently arranged pantry. The kitchen has been planned in such a way as to bring the coarser work, such as the handling of pots, kettles, pans and stove utensils, near the sink and tin closet, the location of which is shown on the floor plan. This closet is provided with broad shelves for mixing purposes and a place beneath for a flour barrel, the lid being hinged. The pantry is fitted with copper sink for washing china, silver and glassware, and is designed to save steps between the pantry and sink. The stairs leading to the cellar are directly under the main stairs, thus economizing space. Upon the second floor are two sleeping rooms, with closets to each of good size, and also a linen closet. Over the kitchen is an attic, a portion of which could be utilized as a bathroom in case the cottage were located where there is a water service. The entire arrangement of rooms has been made with special reference to economy of labor and to save the busy housewife as many steps as possible. A dwelling was erected from these plans for Frank Sneath of Farmington, Conn.



Roof Plan.

Scale, 1-16 Inch to the Foot.

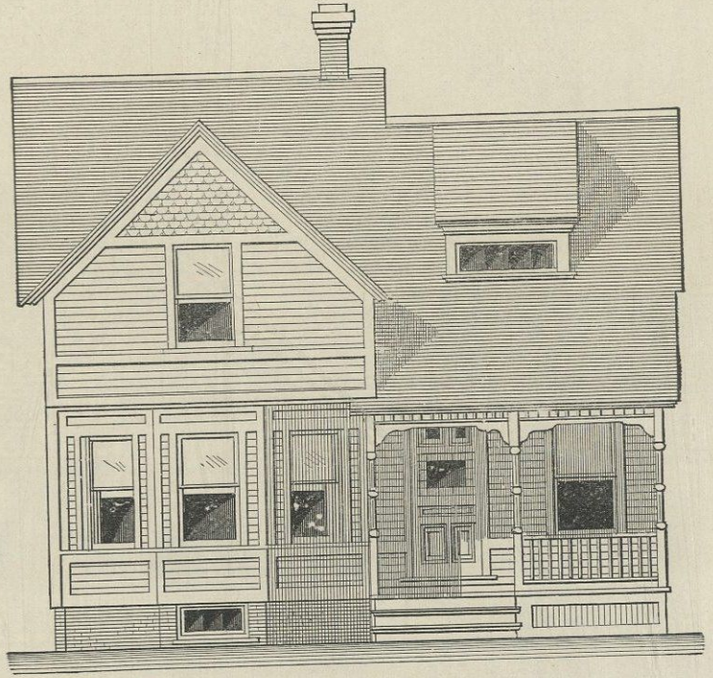


Foundation.

ARCHITECT:

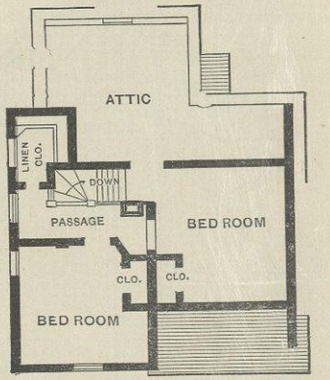
J. D. SIBLEY,

MIDDLETOWN, CONN.



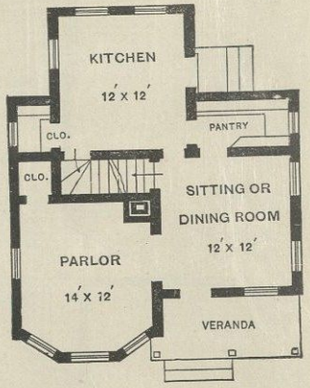
Front Elevation.—Scale, ⅛ Inch to the Foot.

DESIGN NO. 18.



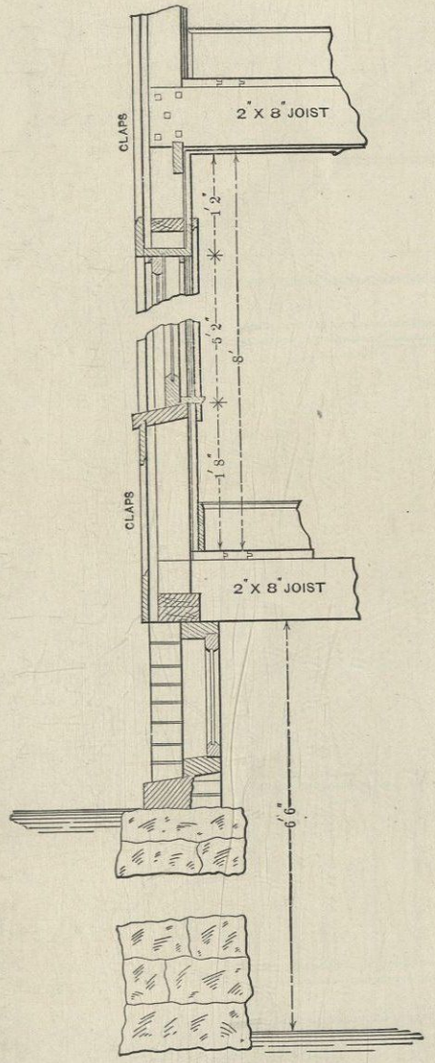
Second Floor.

Scale, 1-16 Inch to the Foot.

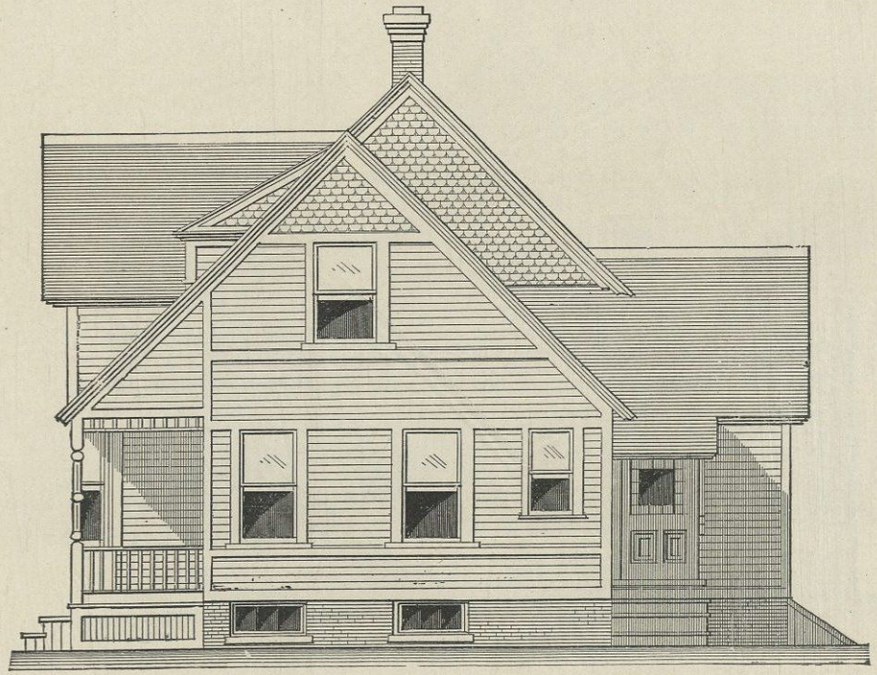


First Floor.

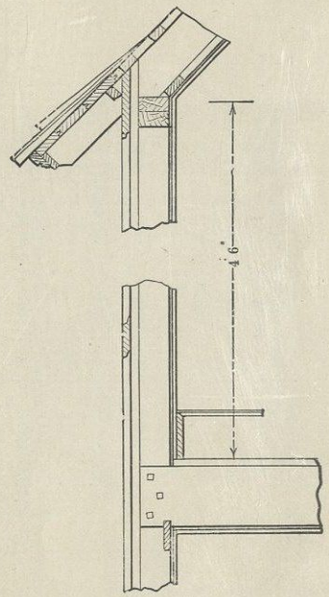
DESIGN NO. 18.



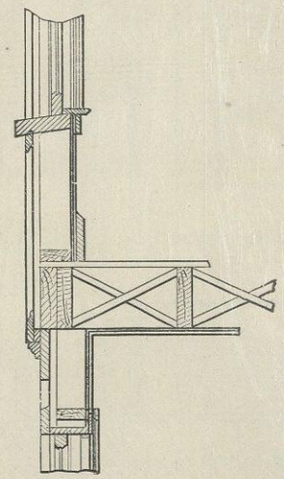
Vertical Section through First Story.—Scale, ½ Inch to the Foot.



Side (Right) Elevation.—Scale, ⅛ Inch to the Foot.

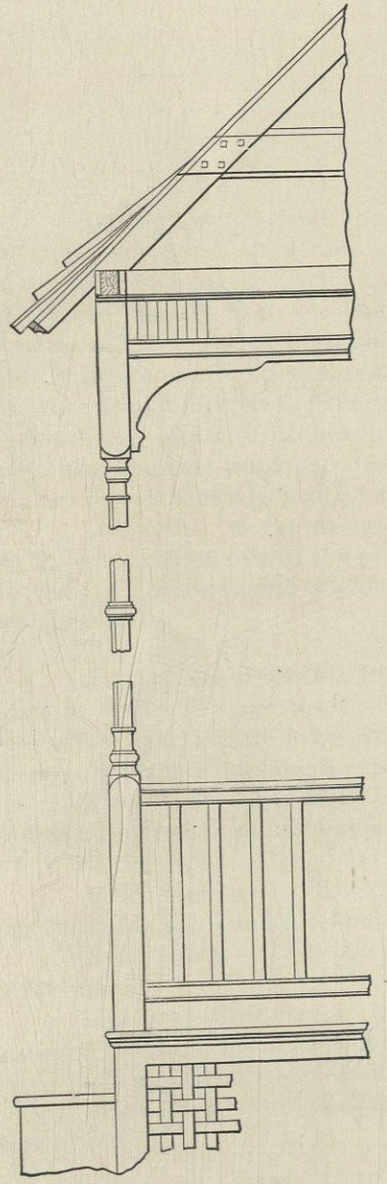


Detail of Main Cornice and Section at Second Floor.—Scale, ½ Inch to the Foot.

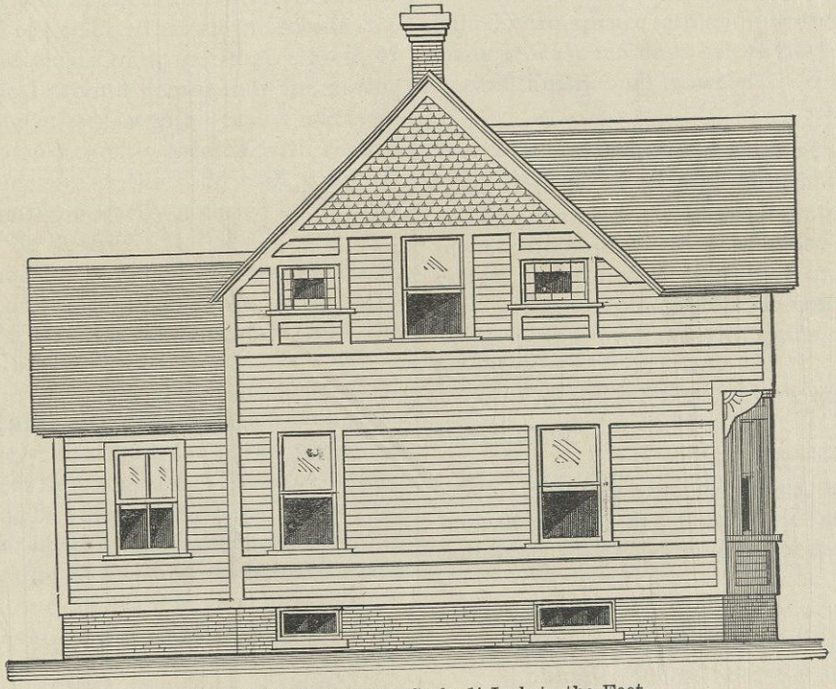


Section through Front Bay.—Scale, ½ Inch to the Foot.

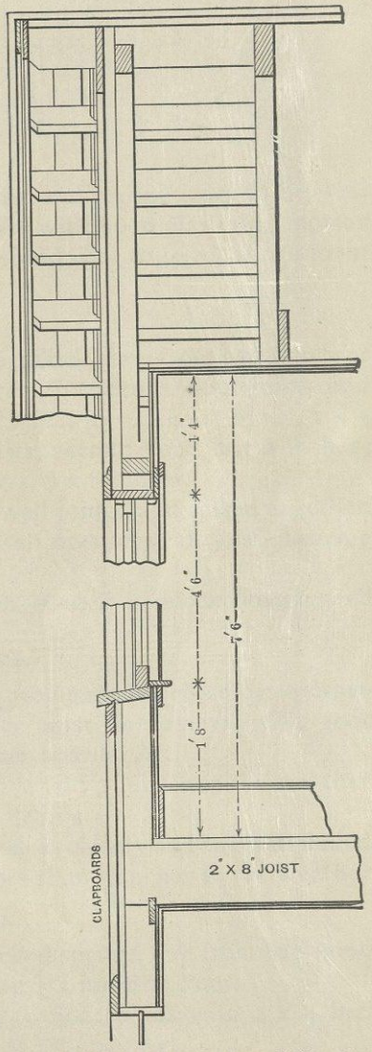
DESIGN NO. 18.



End of Veranda.



Side (Left) Elevation.—Scale, ⅛ Inch to the Foot.



Section through Second Story.

DETAILS.—Scale, ½ Inch to the Foot.

Design No. 19.

$1,000.

A design which will appeal to the requirements of many of those desiring a cottage of six rooms with a neat and attractive exterior is shown on the following pages. Attention is called to the fact that all the rooms can be entered directly from the hall with little waste of space; that closets of ample size are provided both on the first and second floors; that the parlor and dining room are so situated, one to the other, as to be easily warmed, and that the kitchen sink, pantry, &c., are conveniently located with regard to the dining room. Another interesting feature is the solid wall which is laid under the rear porch, so that it may be temporarily inclosed by sash in winter, or permanently protected, as may be desired.

The author of the design is Thomas E. Jennings of Saranac Lake, N. Y., who secured one of the prizes in a competition for $1,000 houses conducted by *Carpentry and Building*. The following are extracts from the specifications:

MASONRY.

Excavation.—Excavate to proper depth for a cellar 6 feet 6 inches so that the wall will show 2 feet above grade. Excavate for porch piers and rear walls so that stone work will start 3 feet below grade. The excavations to extend 6 inches outside of exterior line of building.

Stone Work.—Lay large flat stones at bottom of all walls, said footing course to extend 6 inches beyond outside line of finished walls. All walls 1 foot 6 inches thick, of good flat building stone, well laid in good lime mortar.

Porch piers well laid with flat stones to grade. Lay good stone footing for cellar piers and chimney.

Brick Work.—All bricks to be hard and well burned, laid in good brick mortar.

Chimney.—Chimney to be built according to plans. Outside walls 4 inches thick, partitions 2 inches. All spaces between bricks must be well filled with mortar. Select best brick for outside work.

Cellar Piers.—Build cellar piers 12 x 12 inches and cap with flat stone, size of pier.

PLASTERING.

All walls, partitions and ceilings of first and second story to be well lathed with spruce lath and plastered two coats with good plastering mortar made at least ten days before putting on. Second coat to be what is known as sand finish, well troweled.

CARPENTRY.

Timber for frame to be of spruce or hemlock, free from bad knots or other defects to impair its durability or strength. Studs, floor joists and ceiling joists set 16 inches to centers, rafters 2 feet to centers. Studs, 2 x 4 inches; floor joists, 2 x 8 inches; ceiling joists, second floor, 2 x 6 inches; rafters, 2 x 4 inches; sills, 6 x 8 inches; girders, 8 x 8 inches.

Frame to be of balloon construction, well joined and spiked together. Walls plumb and straight, studs doubled at all openings, all joists bearing partitions to be doubled.

Outside of frame to be covered with 7/8-inch hemlock boards well nailed to all the studs.

EXTERIOR FINISH.

Cornice, window frames, porches, &c., to be made according to drawings of sound, dry pine. All outside walls must be covered with good building paper to extend under casings, corner boards, &c.

Clapboards.—No. 1 spruce 5 inches wide laid 3 inches to the weather. Gables finished according to elevations and details.

Roof.—Cover rafters with hemlock boards closely laid and well nailed. Shingles to be best cedar laid not more than 5 inches to the weather.

INTERIOR WORK.

All floors to be laid with 7/8-inch matched spruce, free from bad knots and shakes. Flooring must be well seasoned. Line first floor.

Partitions.—Set partitions according to floor plans with 2 x 4 inch studs, 16 inches to centers. Studs doubled at all openings.

All openings to have grounds for receiving plastering.

DESIGN NO. 19.—Continued.

Interior finish to be put on after plastering is thoroughly dry. Interior finish made of dry white pine of good quality. Finish in hall, parlor and dining room to be as shown in details; on second floor and rest of first floor plain beveled work.

Stairs.—Build stairs according to floor plans and details, risers 7/8 inch, treads 1 1/8 inches, of pine. Rail, post and balusters of red birch, all made according to details. Cellar stairs of pine.

Pantry.—Finish pantry with shelves and cupboards as shown in first-floor plan, six shelves on a side. Under broad shelf place three tip-forward bins; cupboards finished with doors made of matched pine 7/8 inch thick. Glass to be double thick American A glass. Large windows hung with sash balance.

Doors.—All doors are to be of No. 1 white pine. Front door made as shown in elevation and detail 1 3/4 thick. Other first-floor doors 2 feet 8 inches by 6 feet 10 inches, 1 3/8 thick. Second-floor doors and closet doors 2 feet 6 inches by 6 feet 6 inches, 1 1/4 thick. All doors to be hung with loose pin japanned butts of sufficient size. Front door to have 4-inch mortise lock with night key attachment, bronze face; also bronze knobs and trimmings. Other doors to have mortise catches with brass face and jet knobs. Principal doors to have bolts.

PAINTING.

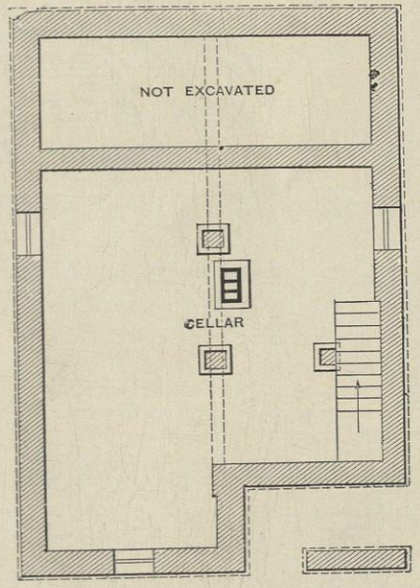
Use ochre and oil for priming exterior and putty all wood work after priming. Paint exterior in shade as directed, with best oxide of iron paint and linseed oil, two coats over priming. Shingled roof not painted. Paint interior finish in tints as directed, three coats, with best ground in oil paints. Birch rail, post and balusters of stairs well finished in natural wood.

TINNING.

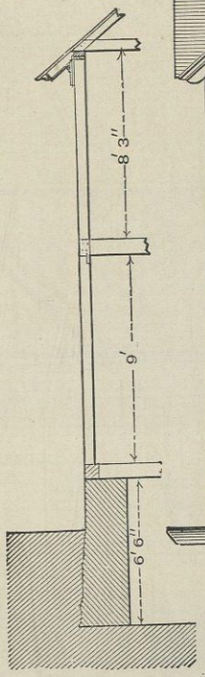
Line all gutters properly. Conductors of tin 3 inches in size. Furnish good valley tin soldered into proper lengths. Step flash chimney and turn in tin at joints of brick. Furnish all other necessary flashings.

The estimated cost of the house is placed at $997, divided as follows: Excavation, $19; mason work, $143.50; carpenter work, $643.75; plastering, $110; painting, $65.75; tinners' work, $15.

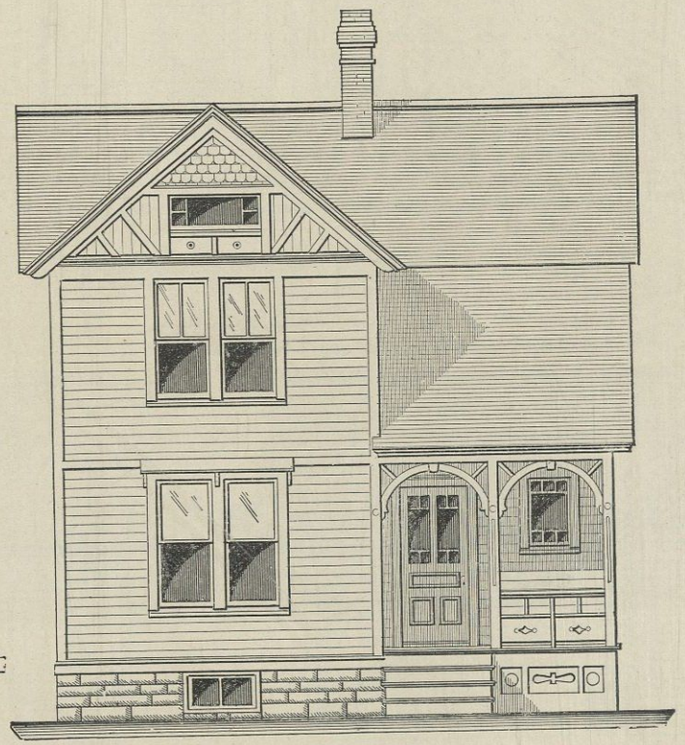
DESIGN NO. 19



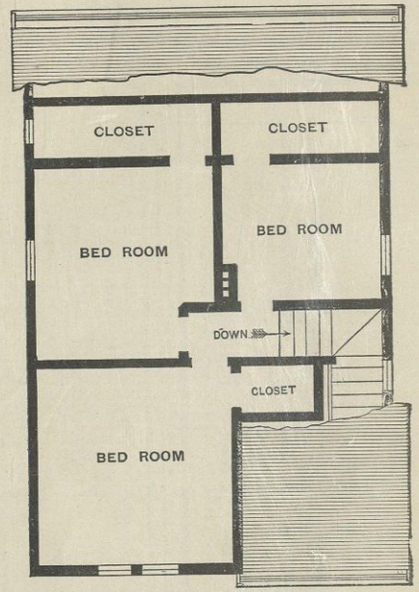
Foundation.—Scale, 1-12 Inch to the Foot.



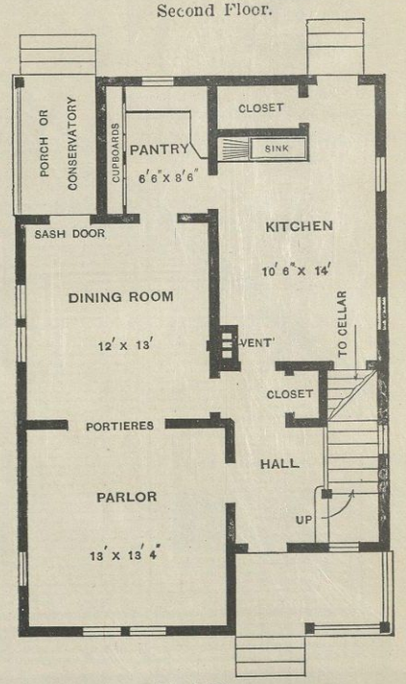
Section.



Front Elevation.—Scale, ⅛ Inch to the Foot.



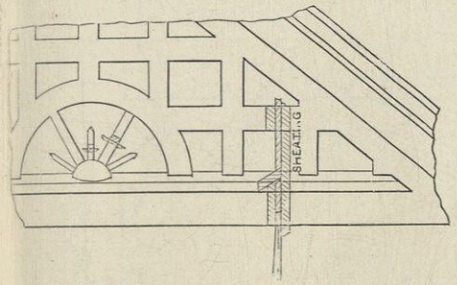
Second Floor.



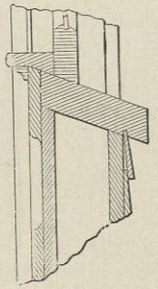
First Floor.
Scale, 1-12 Inch to the Foot.

ARCHITECT:
THOMAS E. JENNINGS,
SARANAC LAKE, N. Y.

DESIGN NO. 19.

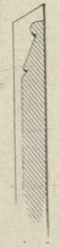


Portion of Left Side of Gable.—Scale, ½ Inch to the Foot.

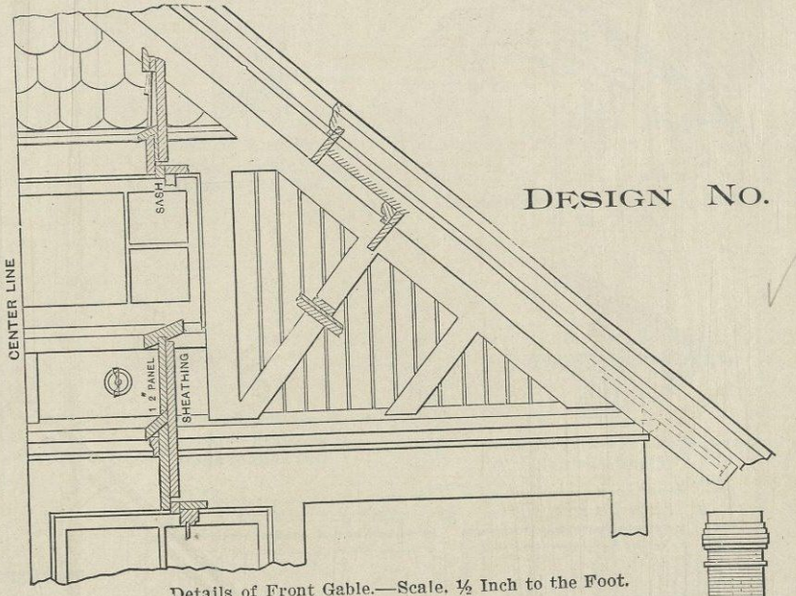


Section through Sill of Parlor Window.—Scale, 1 Inch to the Foot.

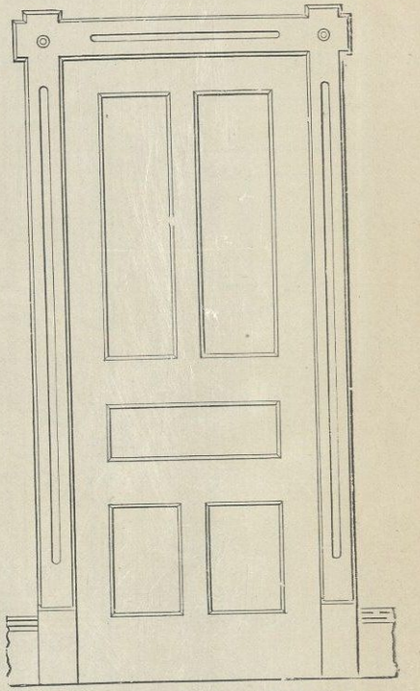
Section of Inside Doors.—Scale 1½ Inches to the Foot.



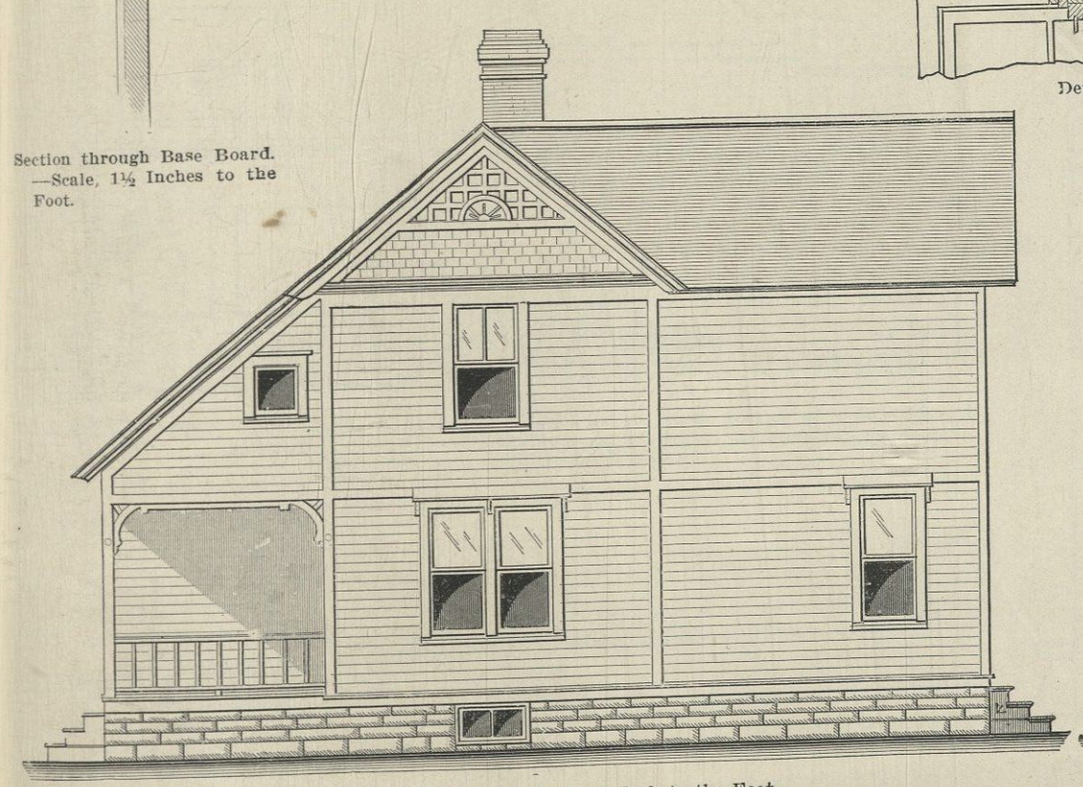
Section through Base Board.—Scale, 1½ Inches to the Foot.



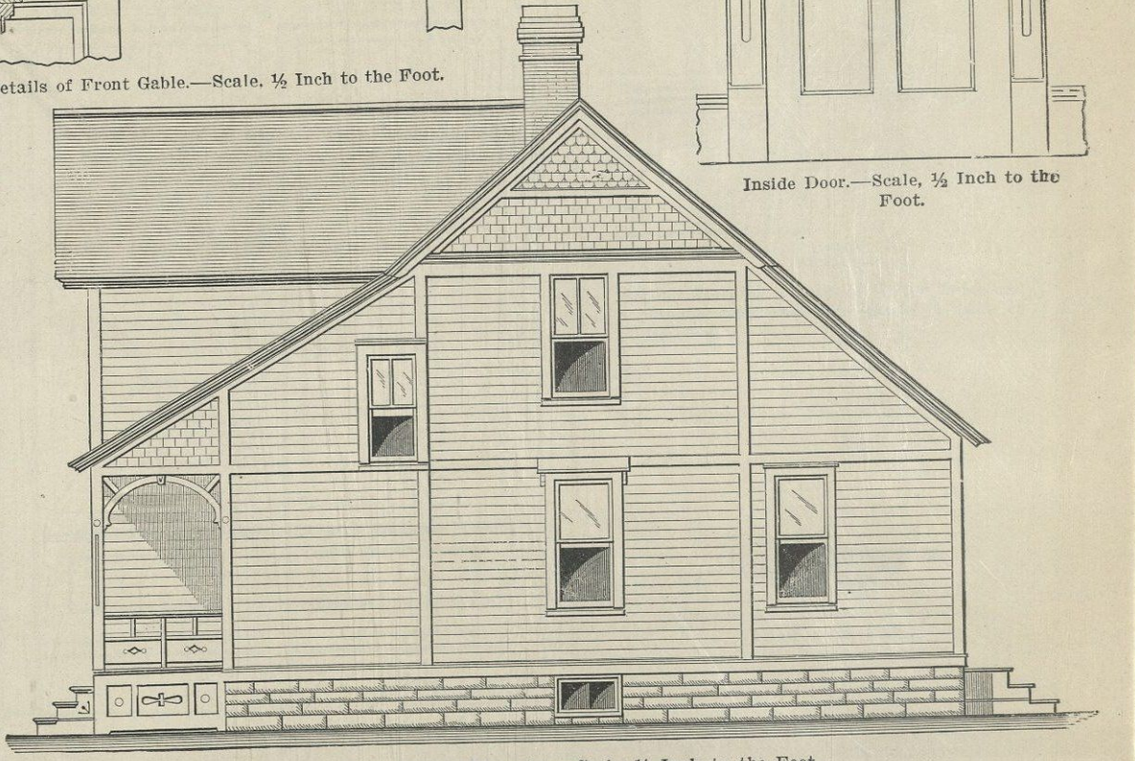
Details of Front Gable.—Scale, ½ Inch to the Foot.



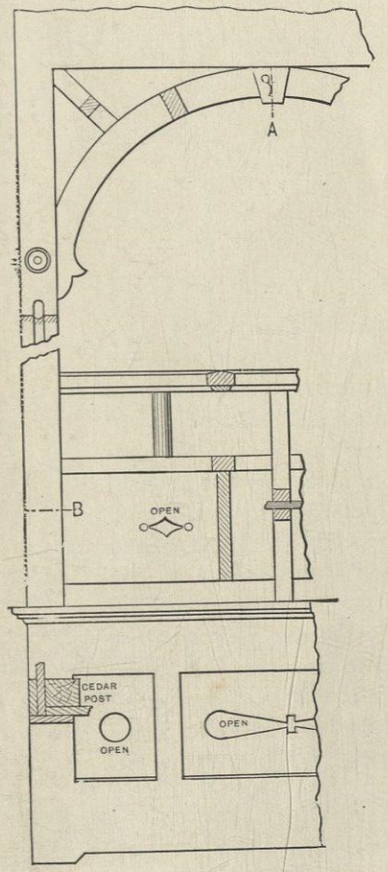
Inside Door.—Scale, ½ Inch to the Foot.



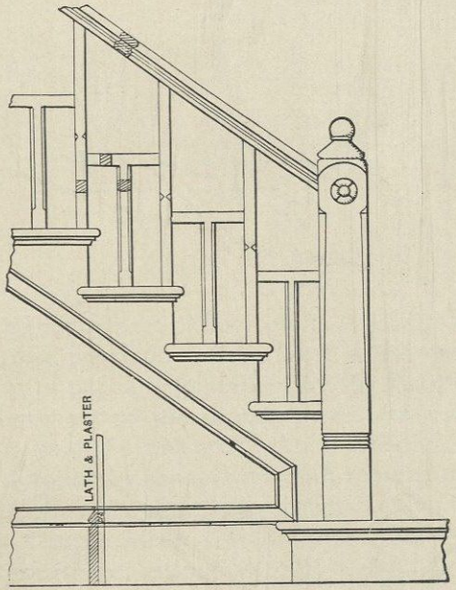
Side (Left) Elevation.—Scale, ⅛ Inch to the Foot.



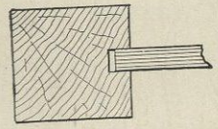
Side (Right) Elevation.—Scale, ⅛ Inch to the Foot.



Details of Front Porch.—Scale, ½ Inch to the Foot.

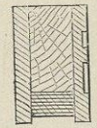


Details of Hall Stairs.—Scale, ½ Inch to the Foot.



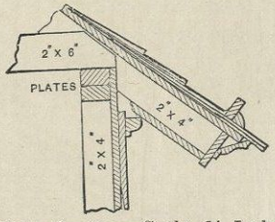
Section through Porch Column at B.—Scale, 1½ Inches to the Foot.

Section of Trim.—Scale, 1½ Inches to the Foot.

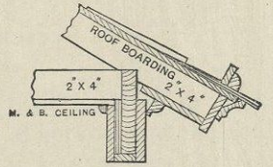


Section at A of Front Porch. — Scale, 1½ Inches to the Foot.

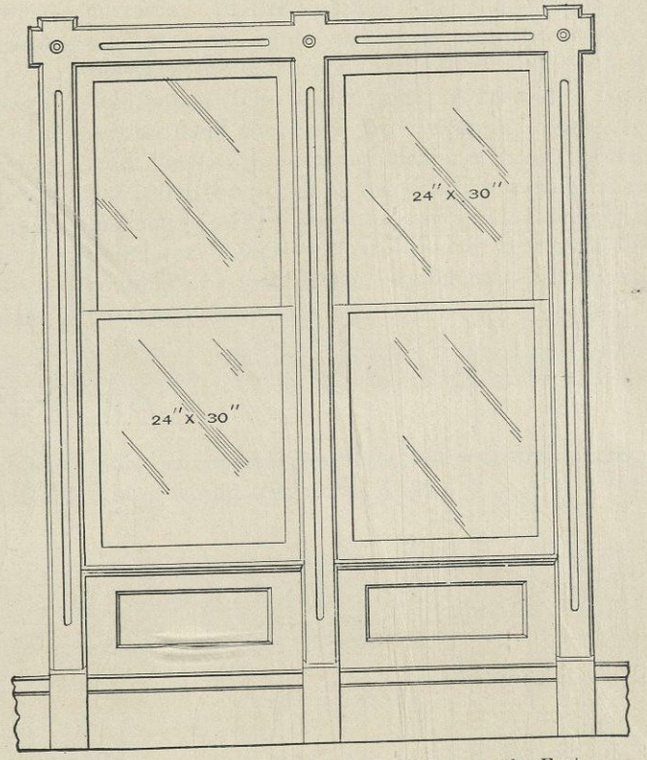
Section of Rosette in Porch. — Scale, 1½ Inches to the Foot.



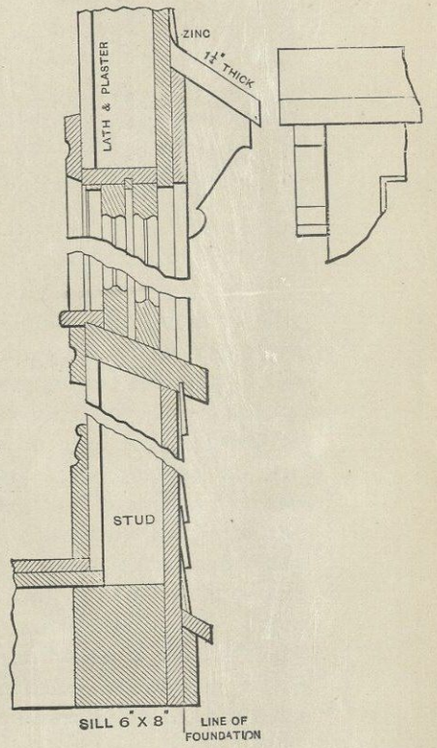
Main Cornice.—Scale, ½ Inch to the Foot.



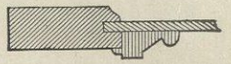
Porch Cornice.—Scale, ½ Inch to the Foot.



Elevation of Parlor Window.—Scale, ½ Inch to the Foot.



Section Showing Details of Water Table and Window Cap and Sill.—Scale, 1 Inch to the Foot.



Section of Front Door.—Scale, 1½ Inches to the Foot.

DESIGN NO. 19.

Designs Nos. 20 and 21.

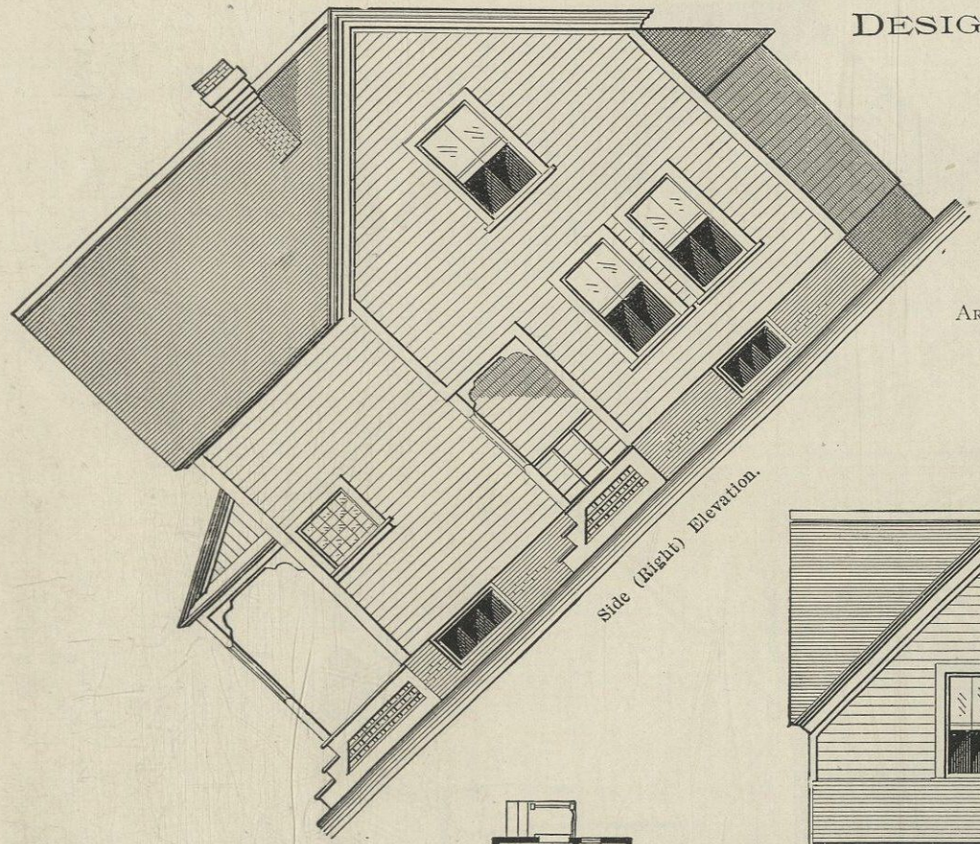
$1,000. $1,500.

It is very often the case that one set of floor plans is used as the basis for a variety of designs in house construction—at least so far as external appearance is concerned. This is partially explained by the fact that while many admire the same arrangement of the rooms, tastes differ as to the manner in which the exterior shall be finished. An interesting example illustrating the case in point is found in connection with the elevations and floor plans presented upon the following pages, the designs having been prepared by J. D. Sibley of 70 Church street, Middletown, Conn. Design No. 20 represents a house of six rooms, estimated to cost about $1,000. In its construction the stone walls in the cellar are laid dry and pointed inside with mortar, while the cellar bottom is graveled. One chimney is made to serve the purpose of the whole house, rising as it does at a point which practically divides the kitchen from the parlor on the first floor. Instead of brick piers in the cellar for the purpose of supporting the girders, chestnut posts are employed for the sake of economy. The finish throughout is plain, with flat ¼ x 2 inch band molding around the windows and doors. The floors throughout are of spruce, and the roof is shingled. From inspection of the first-floor plan it will be seen that the workroom at the rear of the house is separated from the kitchen by an arch, which may be closed by curtains. In the summer time the kitchen may be used for a sitting or dining room, while making use of the workroom as the regular kitchen. Between the workroom and pantry there is a slide, thus facilitating household work. The water supply is furnished from a cistern or tank. On the second flood there are three sleeping rooms, access to which is made easy from the stair landing by means of its octagonal form. The veranda on the front and the porch at the sides have solid square posts chamfered. From inspection of the elevations it will be seen that the house is finished very plain, the object being to present a design for a cheap cottage in which conomy of construction, combined with convenient arrangement, has been constantly kept in view.

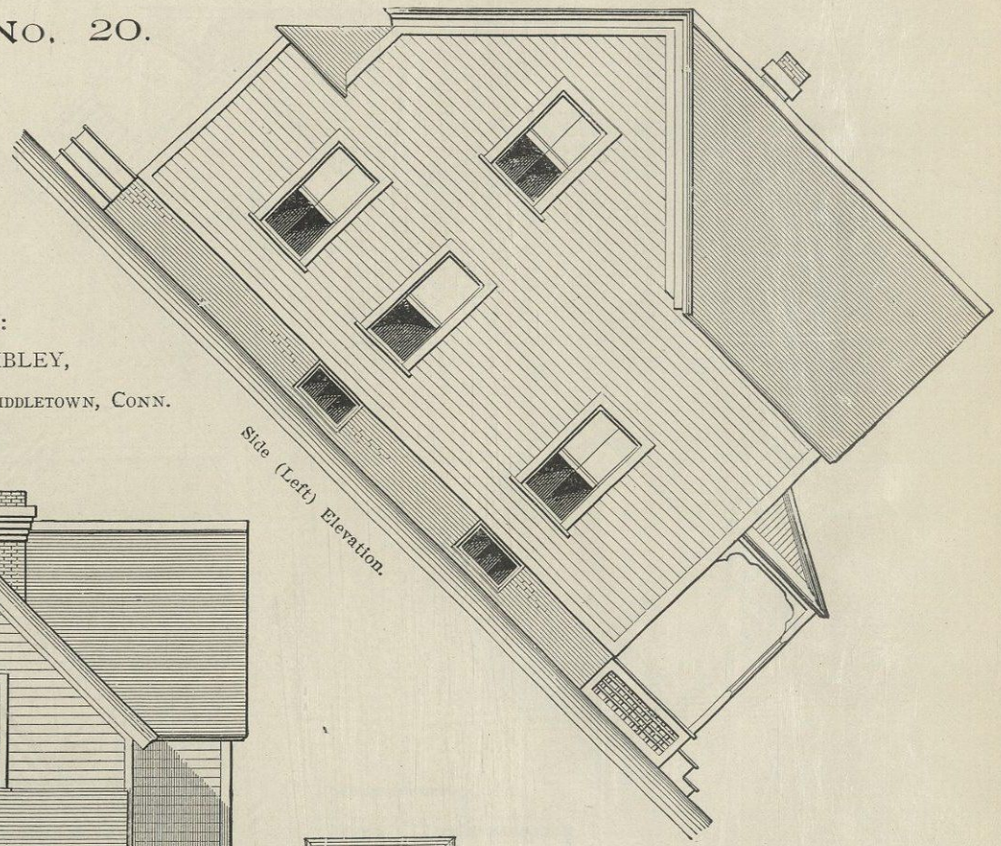
Design No. 21.

It will be seen that Design No. 21 is based upon the same floor plans as are shown in connection with Design No. 20, while the exterior is of a more ornamental character. It is probable, the author states, that the second design would cost about $1,500.

DESIGN NO. 20.



Side (Right) Elevation.

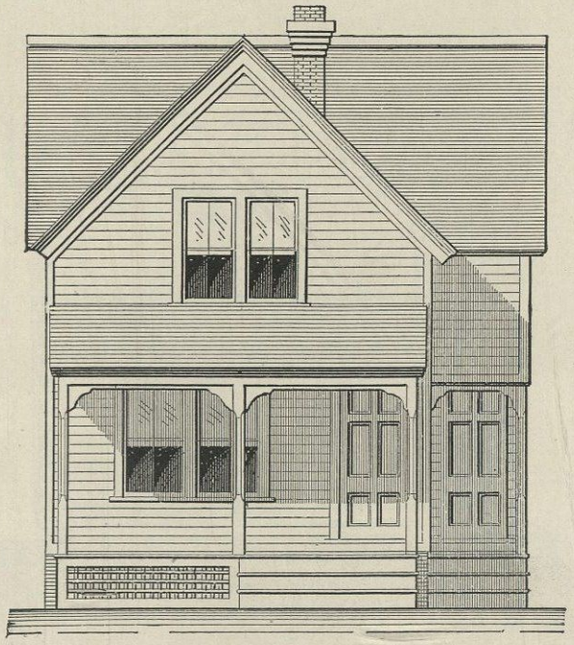


Side (Left) Elevation.

ARCHITECT:

J. D. SIBLEY,

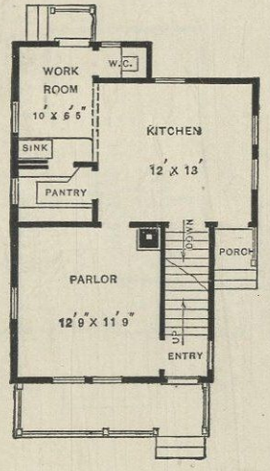
MIDDLETOWN, CONN.



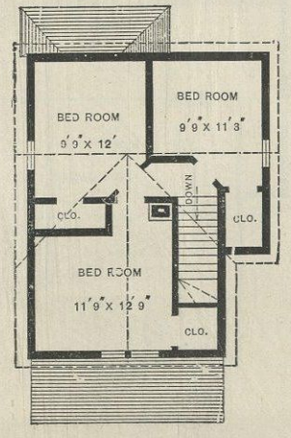
Front Elevation.

COST,

$1,000.



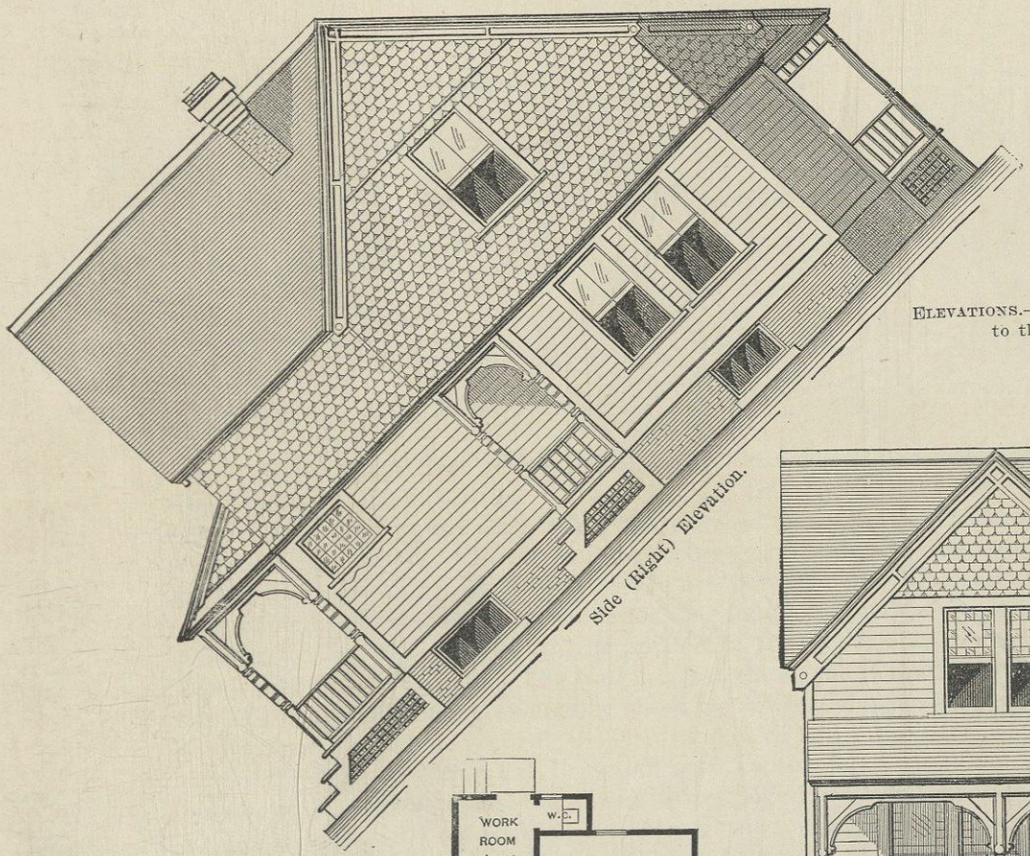
First Floor.



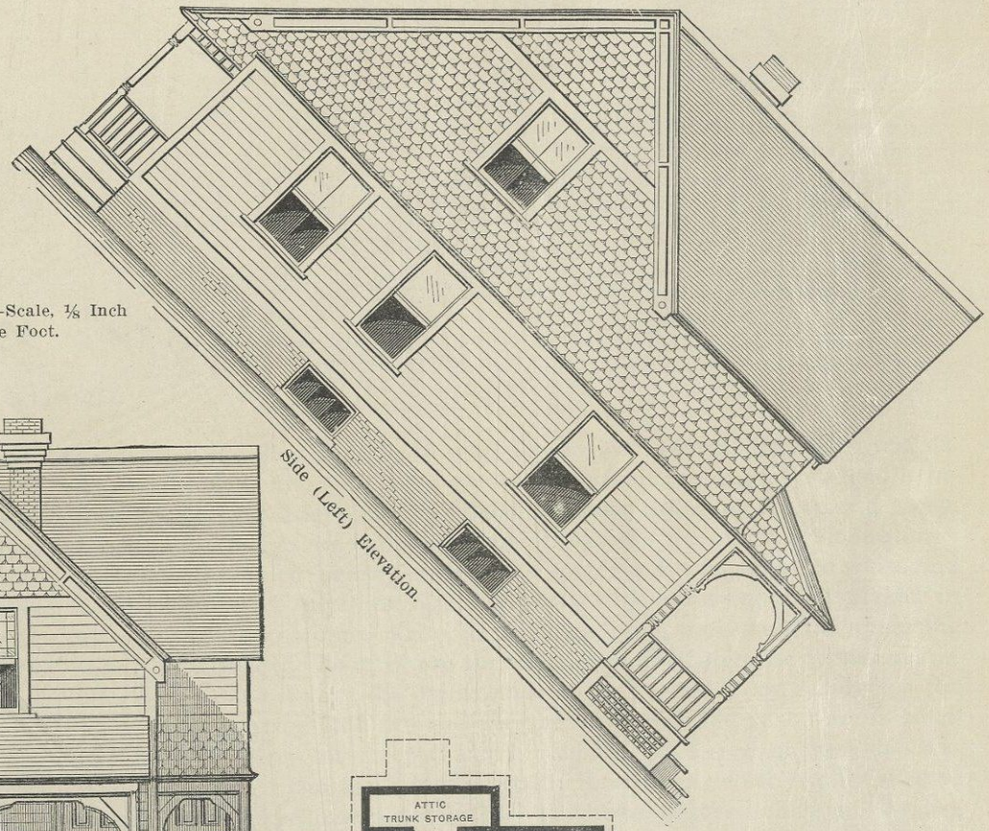
Second Floor.

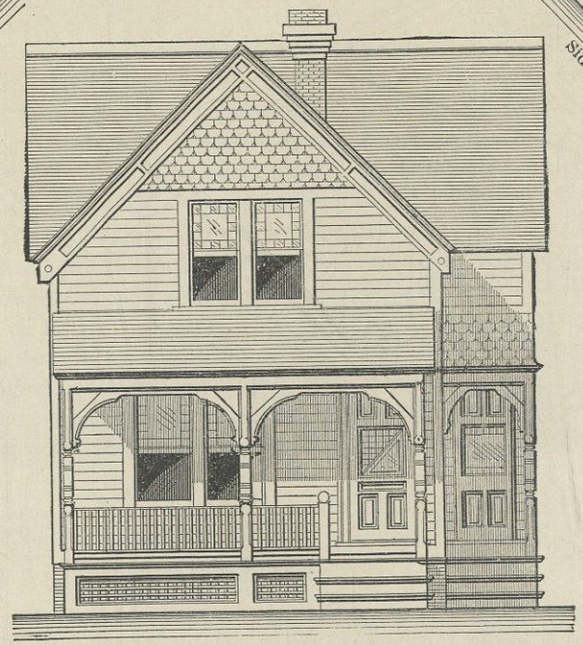
ELEVATIONS.—Scale, ⅛ Inch to the Foot.

FLOOR PLANS.—Scale, 1-16 Inch to the Foot.

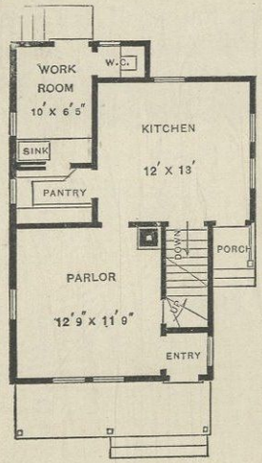


ELEVATIONS.—Scale, ⅛ Inch to the Foot.

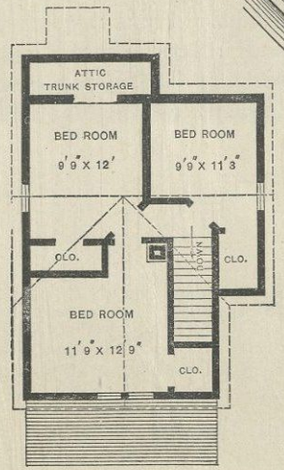




Front Elevation.



First Floor.



Second Floor.

FLOOR PLANS.—Scale, 1-16 Inch to the Foot.

DESIGN NO. 21.

ARCHITECT:

J. D. SIBLEY,

MIDDLETOWN, CONN.

Design No. 22.

$1,400.

The cottage here shown is pleasantly located in Helena, N. Y., having been erected for Daniel P. Shane. The treatment of the exterior is clearly indicated in the half-tone picture made direct from a photograph taken for the purpose. The interior of the cottage is arranged with four rooms on the first floor and four sleeping rooms and bathroom on the second floor. According to the architect's specifications the foundations of the house are of field stone, laid in lime mortar, the portion of the wall above grade being faced with quarried stone. The wall is 2 feet thick, and is carried up to the top of the first-floor joist, as may be noted by the section showing details of the water table and main cornice. The frame is of balloon construction, the size of the joist, studding, &c., being indicated on the detail mentioned. The outside walls and roof are sheeted with square edged hemlock boards and the roof is covered with cedar shingles. The cornice, window and door frames and other exterior finish are of pine. The clapboards, which are also of pine, are laid on building paper, and were resawed on a bevel from inch boards. The walls of the first story are covered on the inside with square edged hemlock boards laid diagonally, as is also the floor lining of the second story. Pieces 2 x 4 inches are nailed diagonally between the studding of the main partitions and in the second-story walls, giving a strong frame to withstand wind pressure. The plastering is two-coat work, sand finish, the plaster in all cases being continued down to the floor lining and extended up to the lining of the second floor, where the ends of the joist join the outside walls. Blocks are cut between the gable studs at the second-story ceiling for the purpose of stopping both fire and vermin. The hall and parlor are finished in ash, with cherry corner blocks and moldings. The rest of the finish, except the dining room and bedroom on the first floor, which are finished in natural wood, is yellow pine, painted. The house cost to build about $1,400, the plans being prepared by Thomas E. Jennings of Saranac Lake, N. Y.

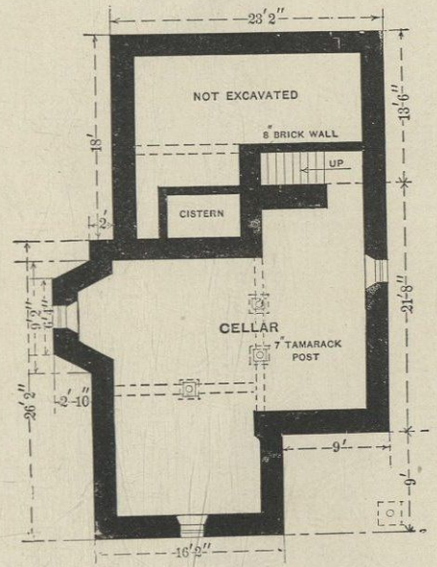
COTTAGE OF DANIEL P. SHANE, AT HELENA, NEW YORK.

ARCHITECT: THOMAS E. JENNINGS.

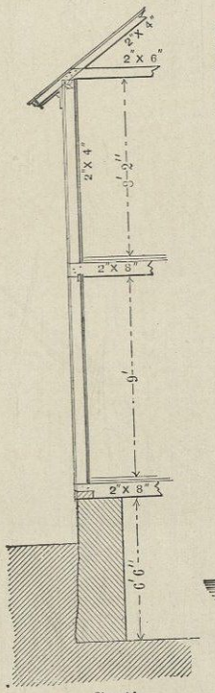
ARCHITECT:

THOMAS E. JENNINGS,

SARANAC LAKE, N. Y.

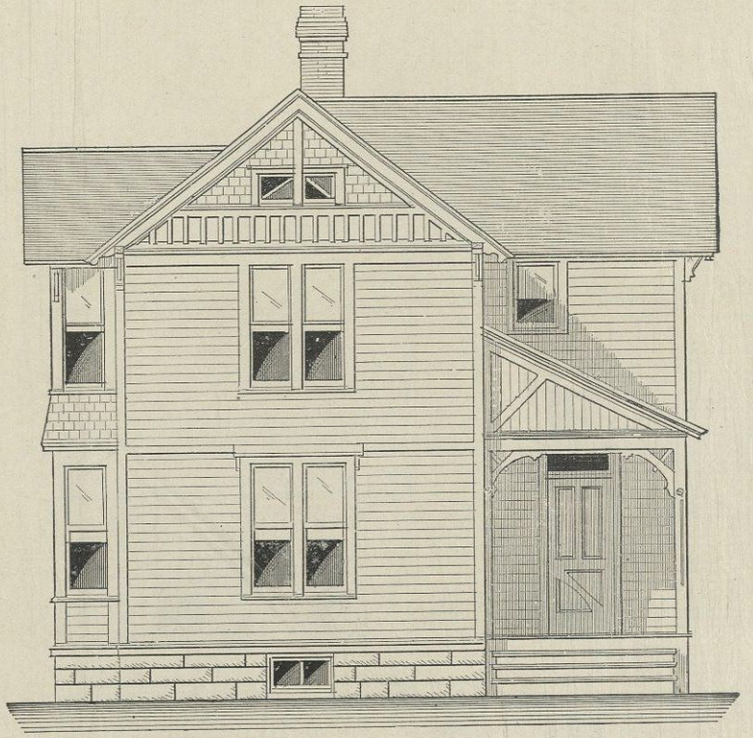


Foundation.

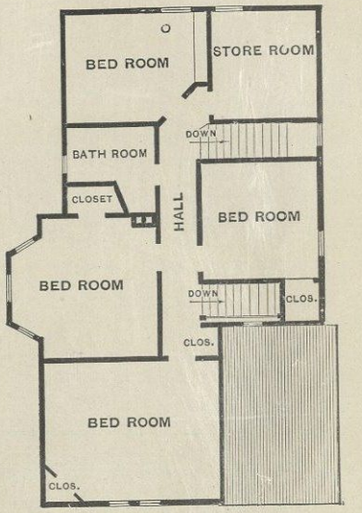


Section.

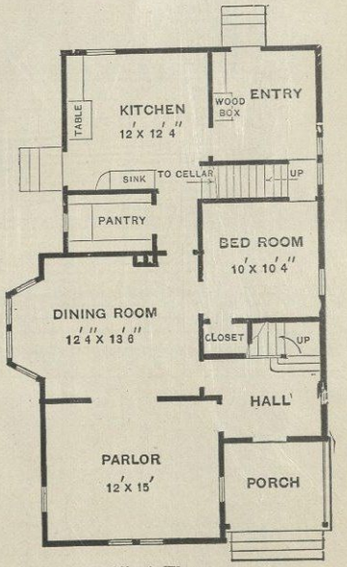
FLOOR PLANS.—Scale, 1-16 Inch to the Foot.



Front Elevation.—Scale, ⅛ Inch to the Foot.

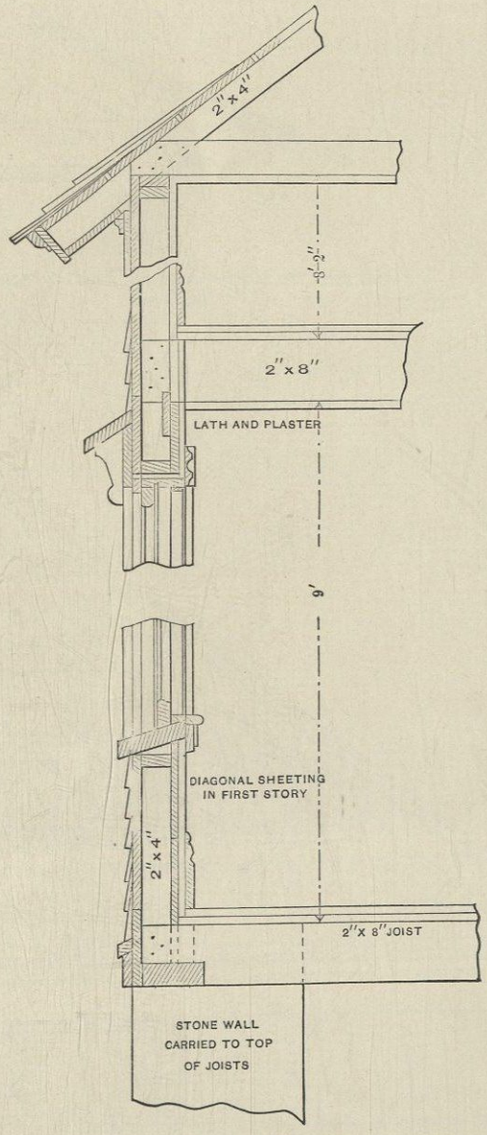


Second Floor.



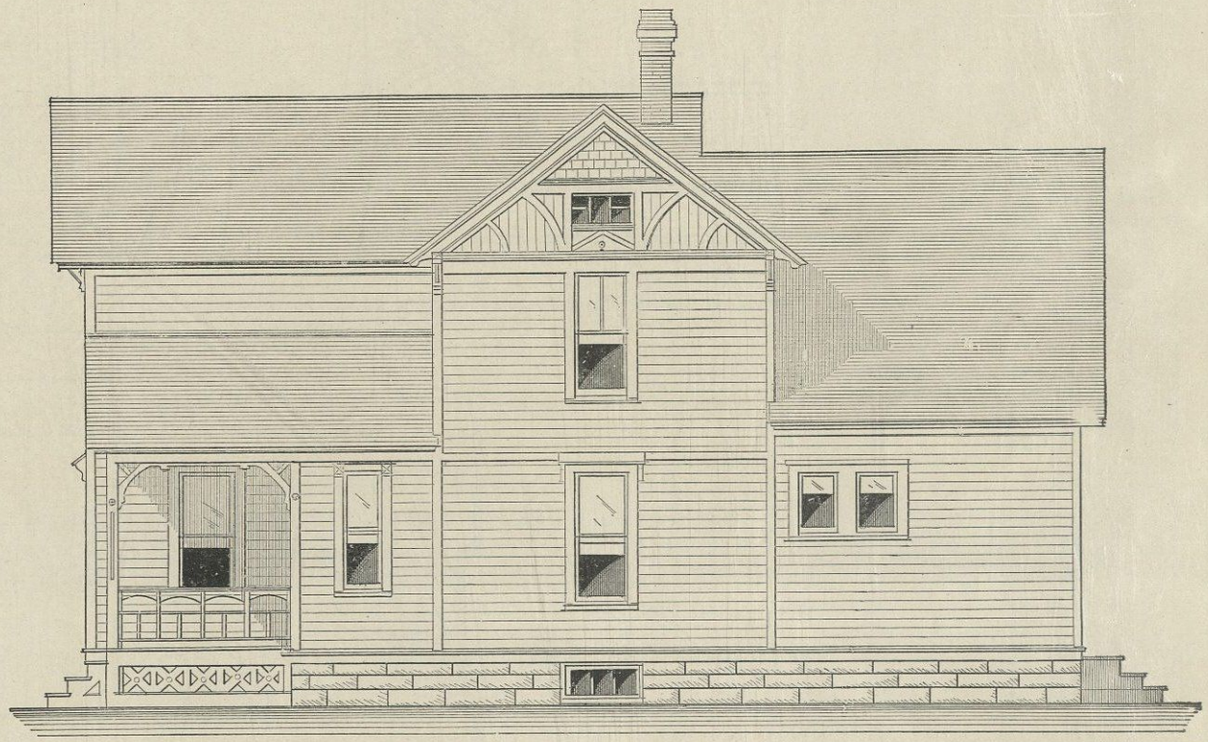
First Floor.

DESIGN NO. 22.

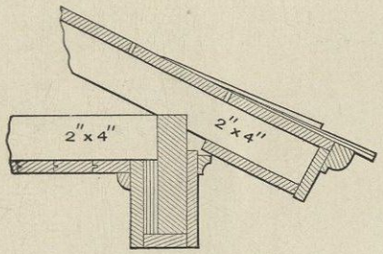


Section Showing Details of Main Cornice, Water Table, &c.—Scale, ½ Inch to the Foot.

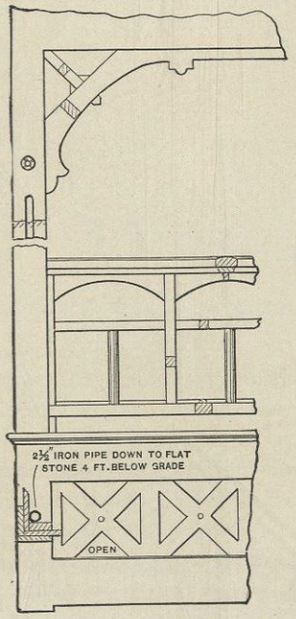
DESIGN NO. 22.



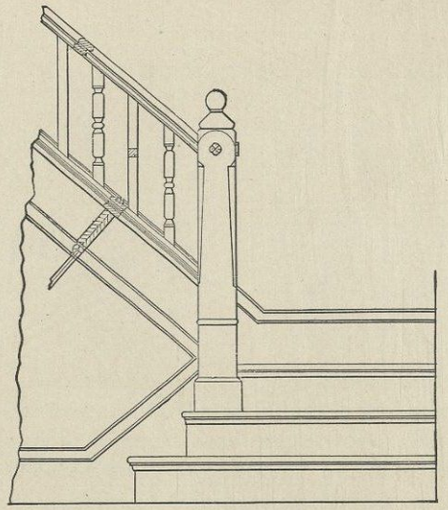
Side (Right) Elevation.—Scale, ⅛ Inch to the Foot.



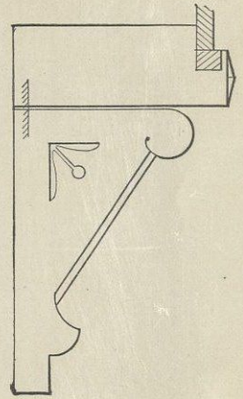
Detail of Porch Cornice.—Scale, ¾ Inch to the Foot.



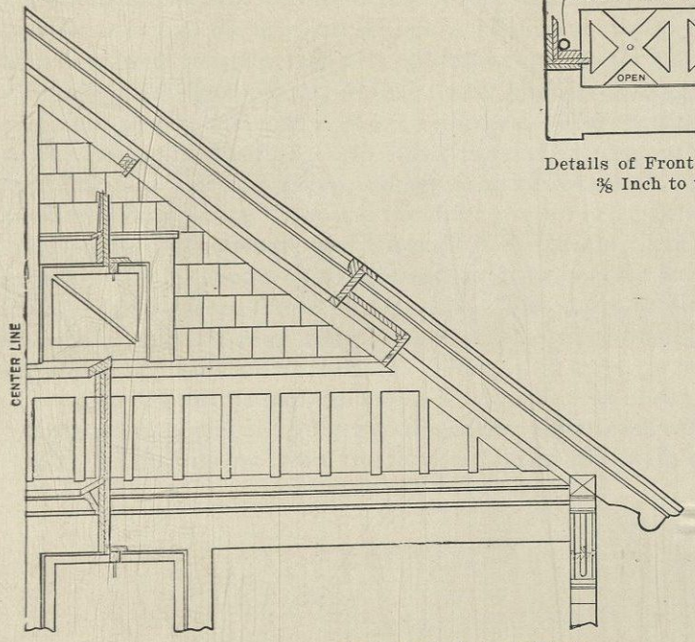
Details of Front Porch.—Scale, ⅜ Inch to the Foot.



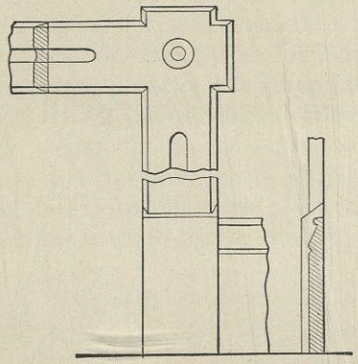
Detail of Main Stairs.—Scale, ⅜ Inch to the Foot.



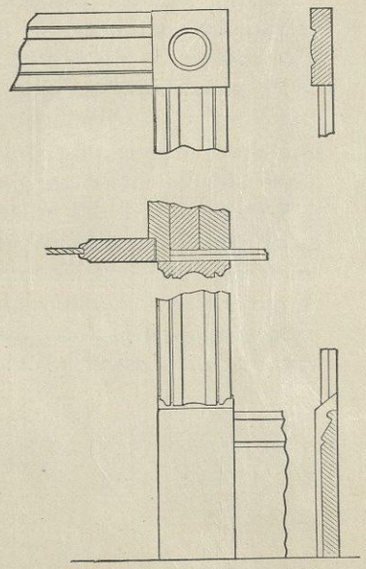
Side View of Porch Bracket. —Scale, 1 Inch to the Foot.



Details of Front Gable.—Scale, ⅜ Inch to the Foot.



Details of Interior Finish on Second Floor. —Scale, 1 Inch to the Foot.



Details of Interior Finish on First Floor. —Scale, 1 Inch to the Foot.

DESIGN NO. 22.

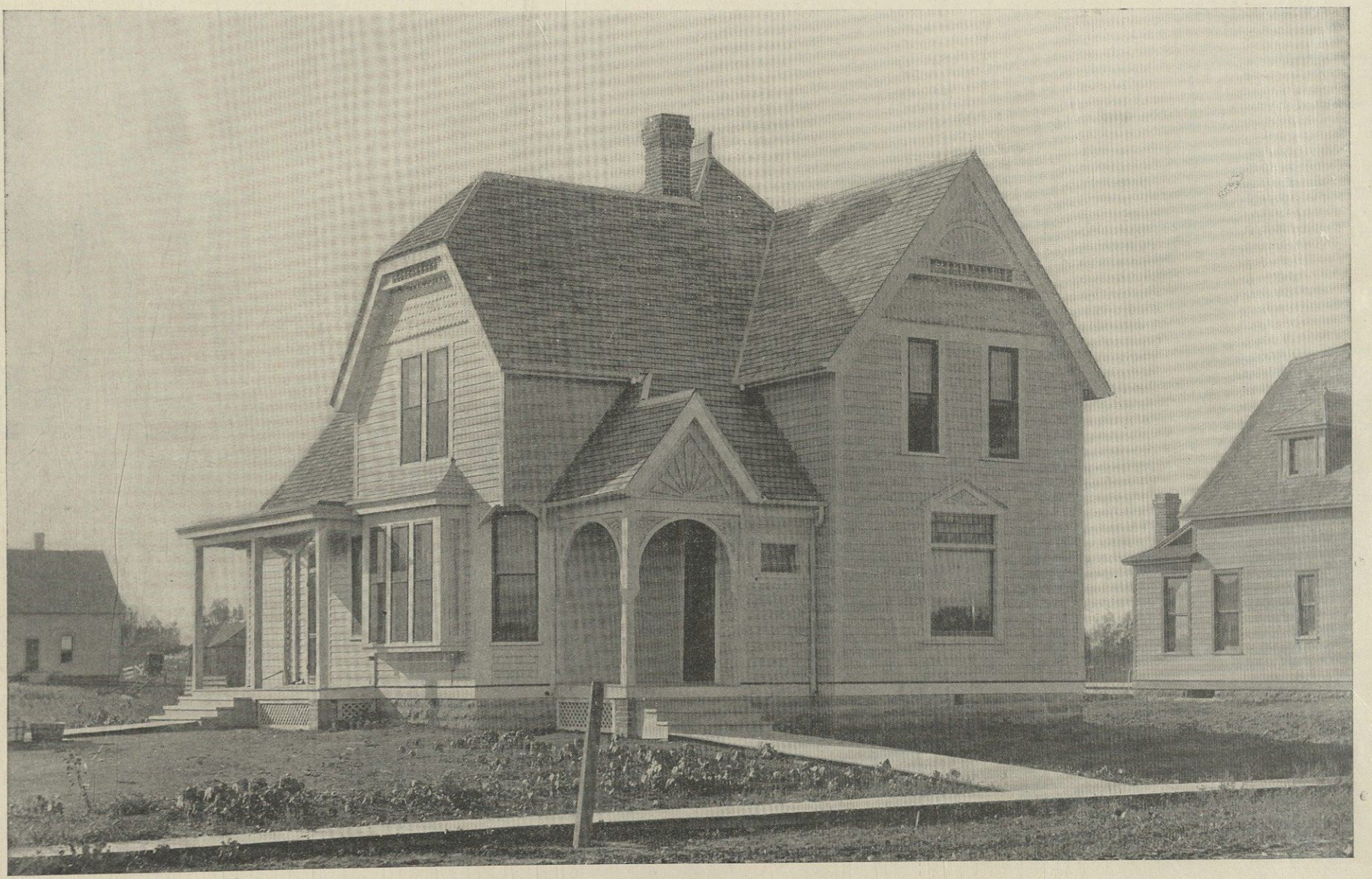
DESIGN NO. 23.

$1,450.

The design here shown is of a character which renders it suitable for erection on a suburban lot, and if painted with some degree of taste will give rather picturesque effects. The house contains all the essentials of a home for a small family, the rooms being of fair size and well arranged for use. The appearance of the finished structure is indicated in the half-tone picture, which is a direct reproduction of a photograph taken for the purpose. There are on the main floor parlor, dining room, kitchen and bedroom, besides a convenient pantry and commodious bathroom. The entrance from the front porch is through a vestibule into either the dining room or parlor. Back of the parlor is a sleeping room, communication between the two being by means of sliding doors. Beyond the dining room is a pantry equipped with all the modern accessories and through it the kitchen can be conveniently reached. The bathroom is so situated as to be readily accessible from the kitchen and also from the sleeping room. The stairs leading to the second floor rise from the dining room and terminate in a small hall from which three sleeping rooms are accessible. There is no cellar provided, but in case one is wanted it can be had under the rear portion or under the entire house at a little extra expense. Access to the cellar in that case would be by means of stairs leading down from the kitchen under the main stairway.

According to the specifications of the architects, George W. Payne & Son, Carthage, Ill., the foundation walls of the cottage are constructed of rubble stone in rock faced range work. The outside walls are of 2 x 4 studding, sheeted with ship lap and building paper, on which is placed ½-inch white pine siding. The roof is covered with cypress shingles, laid on No. 2 sheeting and well nailed. The sills are 6 x 8 inches, the first-floor joist 2 x 8 inches, the second-floor joist 2 x 10 inches, and the studding, rafters and collar beams 2 x 4 inches, all spaced 16 inches from centers. The floor joist are well bridged. The outside of the house is painted three coats. The hight of the stories is clearly indicated in the sectional view.

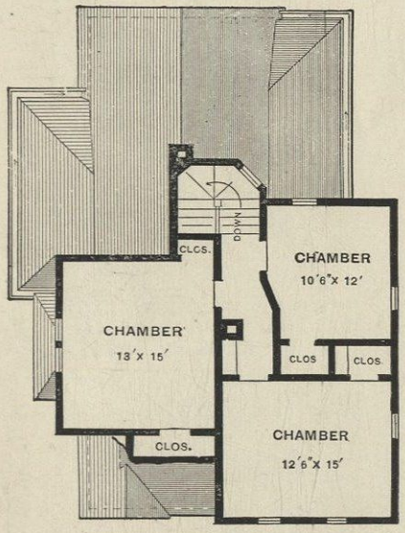
The floors throughout the house are of white pine and the walls and ceilings are plastered three coats. The trim of all the rooms is white pine, smooth wrought and finished natural. The doors on the first floor are five paneled and on the second floor four paneled. The outside and sliding doors are 1¾ inches thick, while the others are 1⅜ inches thick. There are transoms over the principal doors. The dwelling here shown was erected at Carthage, Ill., for W. O. Sharp, at a cost of $1,428, and cottages have been built after the same plans in several other places in the West at a cost ranging from $1,250 to $1,400.



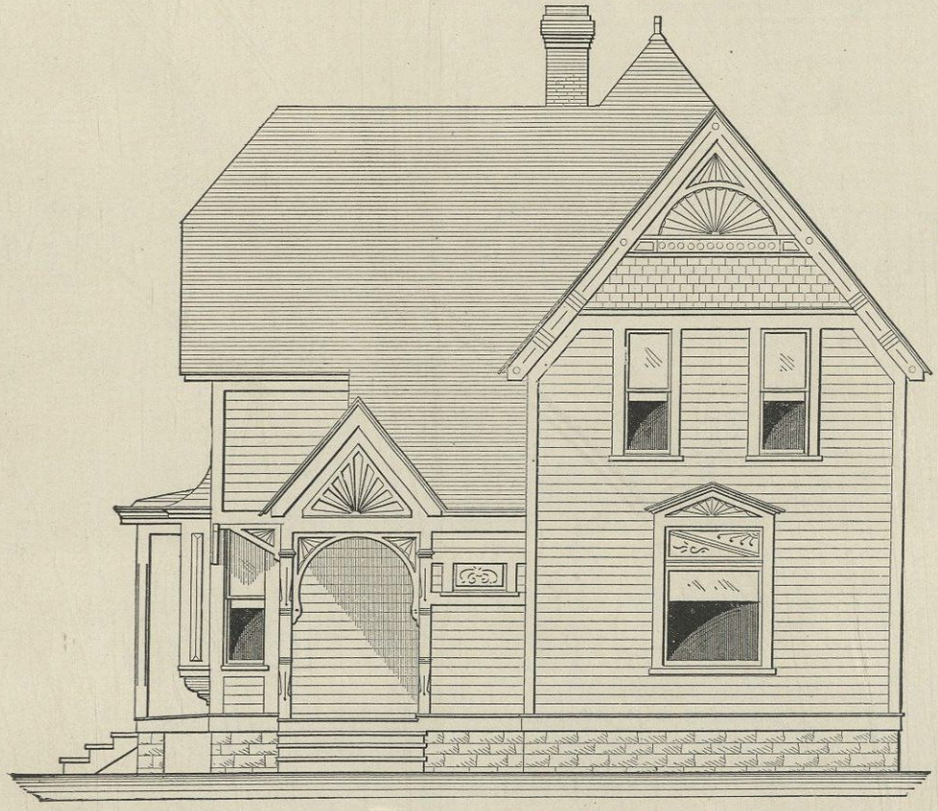
COTTAGE ERECTED FOR W. O. SHARP IN CARTHAGE, ILL.

ARCHITECTS: GEORGE W. PAYNE & SON.

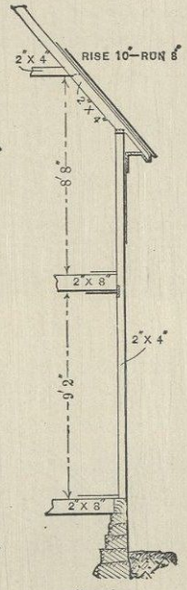
DESIGN NO. 23.



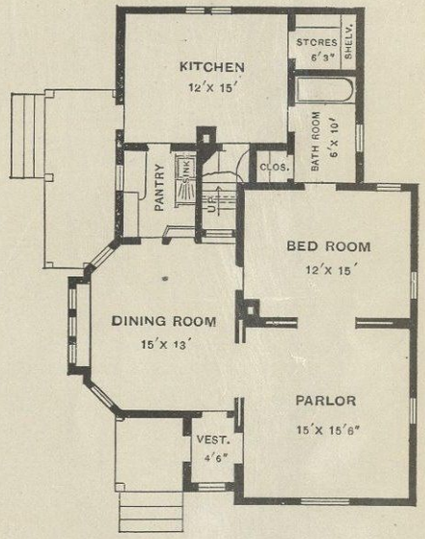
Second Floor.—Scale, 1-16 Inch to the Foot.



Front Elevation.—Scale, 1/8 Inch to the Foot.



Section



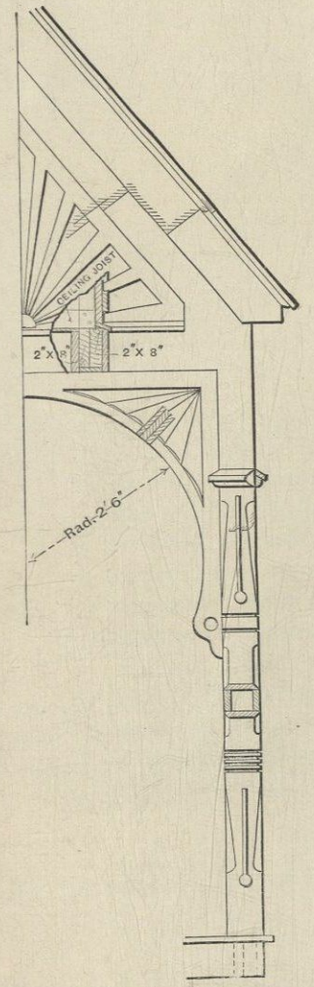
First Floor.—Scale, 1-16 Inch to the Foot.

ARCHITECTS:

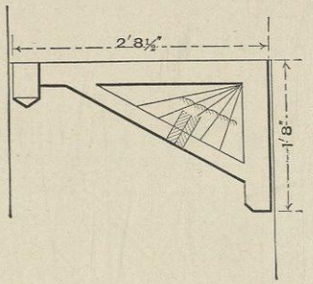
GEORGE W. PAYNE & SON,

CARTHAGE, ILL.

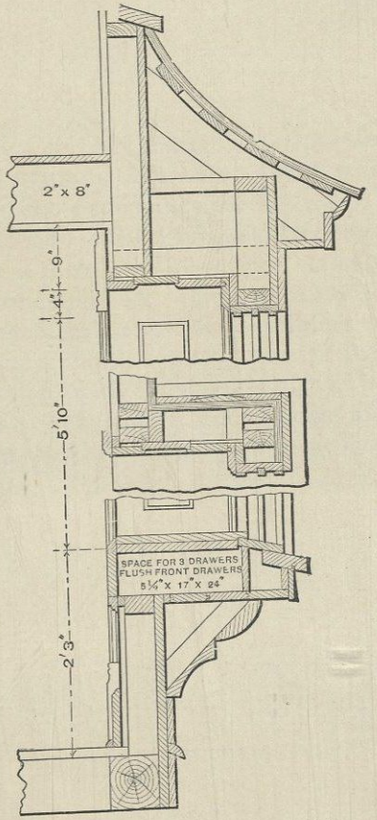
DESIGN NO. 23.



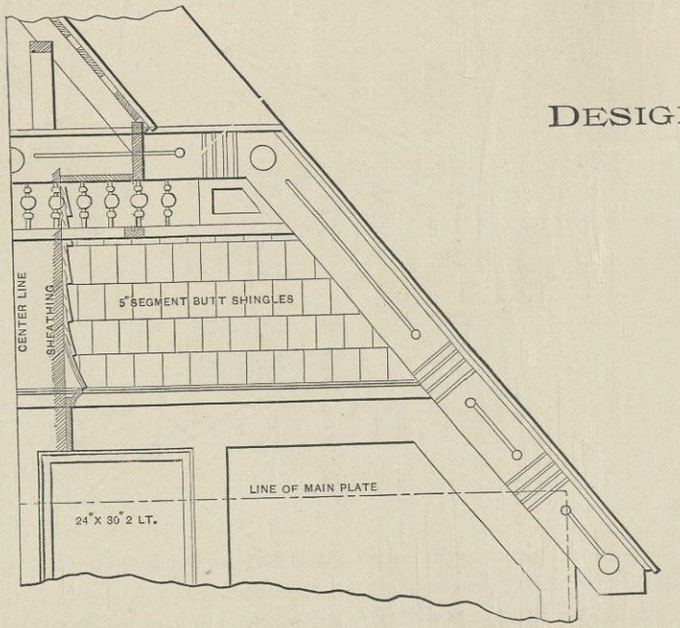
Details of Porch Gable and Column. — Scale, ⅜ Inch to the Foot.



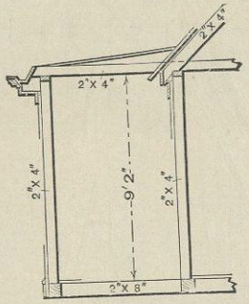
Bracket at Outside Corner of Dining Room.—Scale, ½ Inch to the Foot.



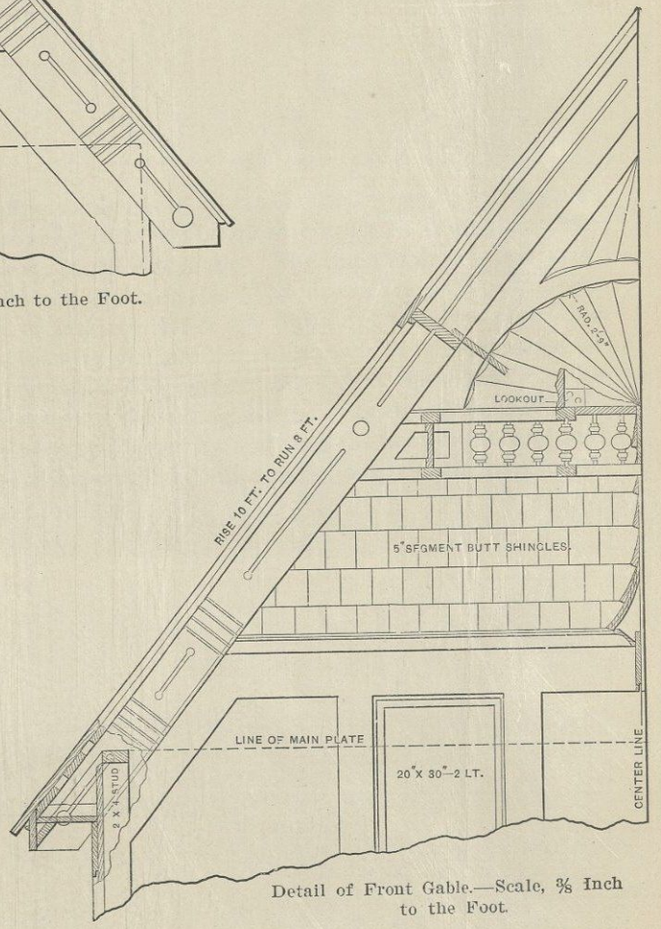
Detail of Bracket Window in Dining Room.—Scale, ½ Inch to the Foot.



Detail of Right Gable.—Scale, ⅜ Inch to the Foot.



Section through Kitchen and Bathroom Wall.——Scale, ⅛ Inch to the Foot.



Detail of Front Gable.—Scale, ⅜ Inch to the Foot.

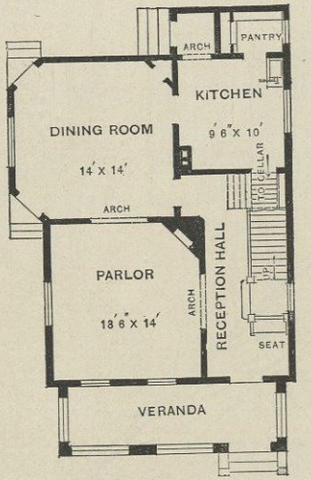
Design No. 24.

$1,500.

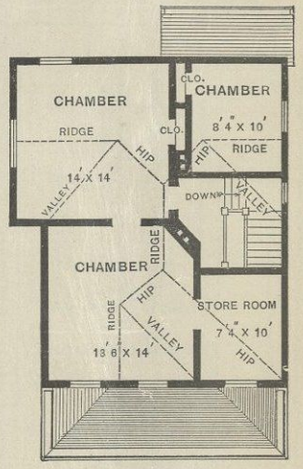
This design presents a cleverly treated exterior combined with a well disposed interior. The structure is built on a 12-inch stone foundation and has a cellar 6½ feet deep in the clear under the hallway. The joists for the first and second stories are 2 x 10; the ceiling joists for the second story 2 x 6 inches, and the rafters 2 x 4 inches. The author states that in estimating the cost 16-foot studding are employed. The exterior of the building is covered with common sheeting boards and heavy building paper, upon which are laid ½-inch siding. The shingles employed are of the best 18-inch pine butts. The exterior is covered with three coats of white lead and best linseed oil. The interior finish of the parlor, dining room and reception hall is of oak, while the balance of the house is finished in yellow pine. The hardware for the three rooms first named is of imitation bronze, while for the rest of the house it is of japanned goods. The glass employed throughout the house is American double strength AA grade. The open stairway is of oak, with seat and turned balusters and newels. The floors are of No. 1 white pine 4 inches wide. The estimated cost of the building, which is piped for gas, is about $1,500 in the locality of Hamilton, Ohio, which is the address of the architect, George Barkman. The author states that this figure can be considerably reduced by running the siding all the way up, leaving off the belt course, making the stairway plainer by omitting the seat in the hall and by dispensing with other things which will readily suggest themselves to the practical carpenter and builder.

DESIGN NO. 24.

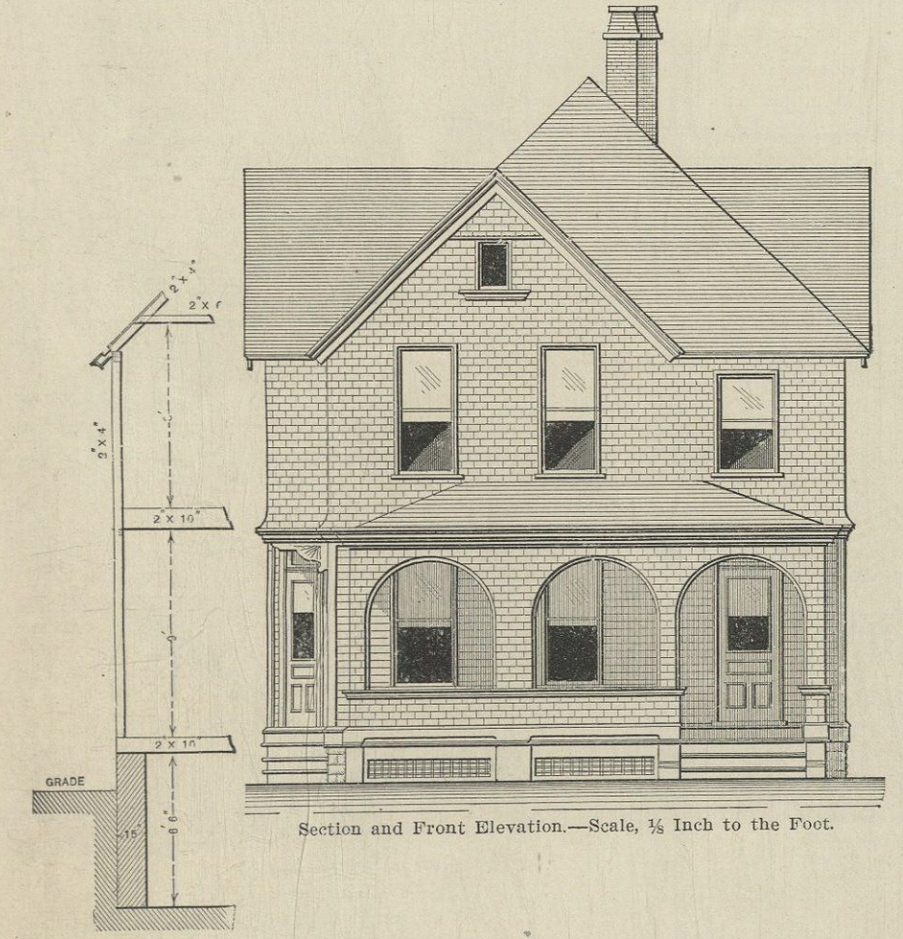
Scale, 1-16 Inch to the Foot.



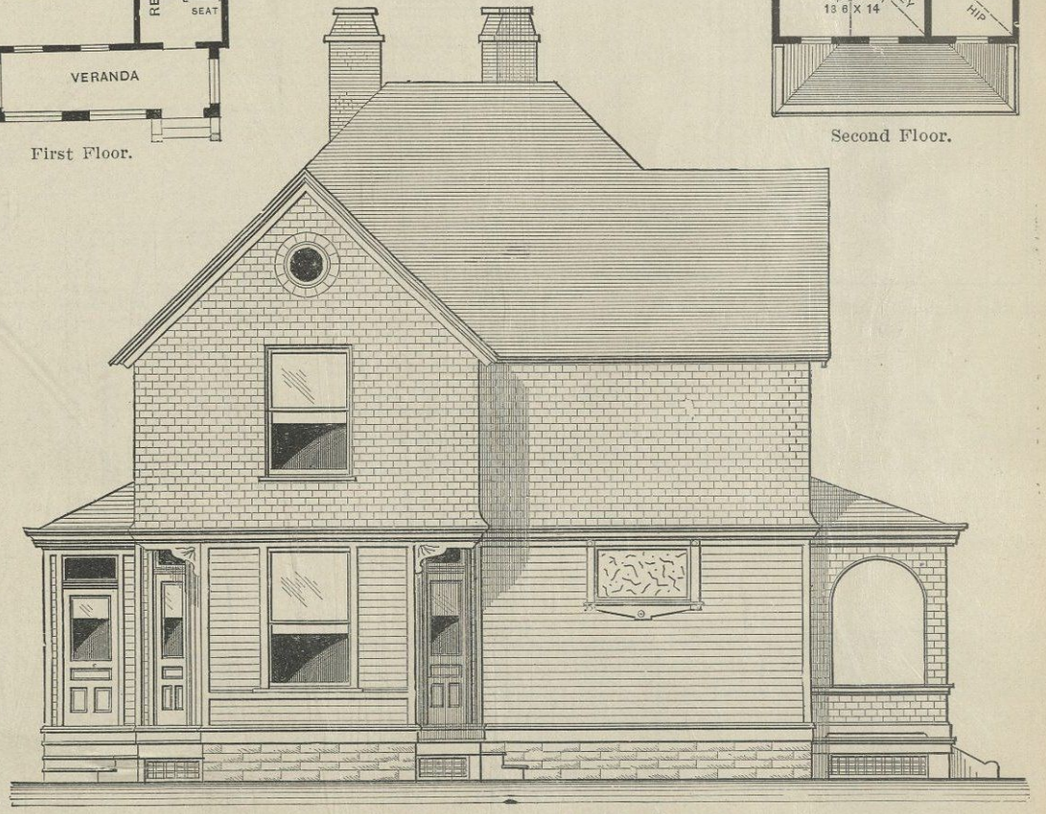
First Floor.



Second Floor.



Section and Front Elevation.—Scale, ⅛ Inch to the Foot.

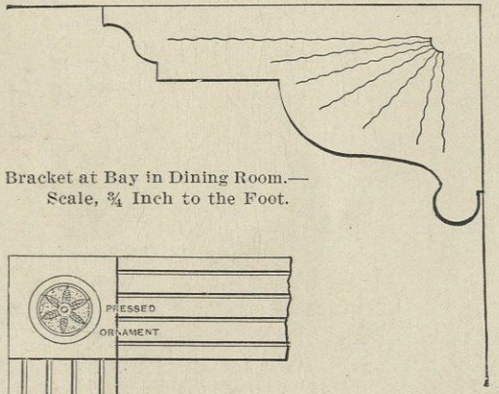


Side (Left) Elevation.—Scale, ⅛ Inch to the Foot.

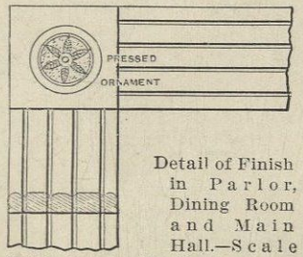
ARCHITECT:

GEORGE BARKMAN,

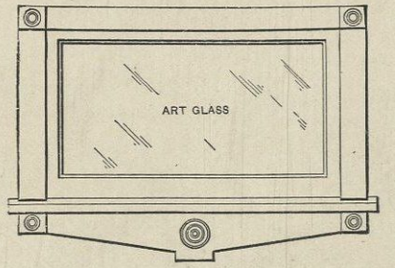
HAMILTON, OHIO.



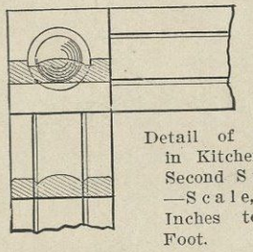
Bracket at Bay in Dining Room.—Scale, ¾ Inch to the Foot.



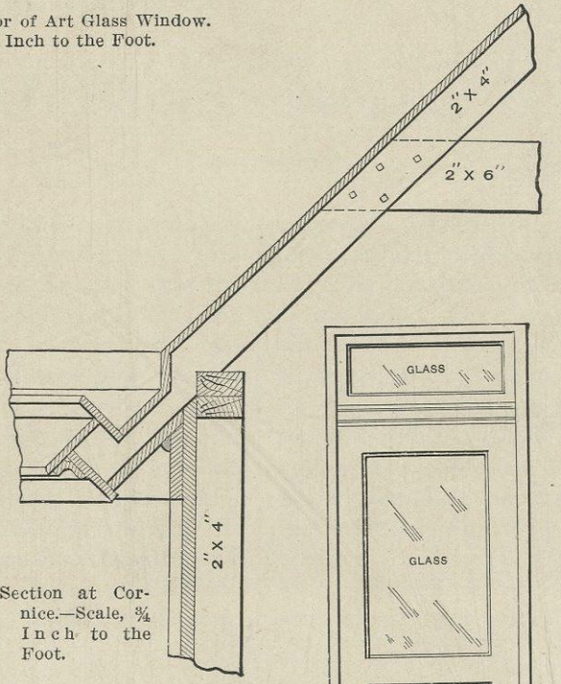
Detail of Finish in Parlor, Dining Room and Main Hall.—Scale 1½ Inches to the Foot.



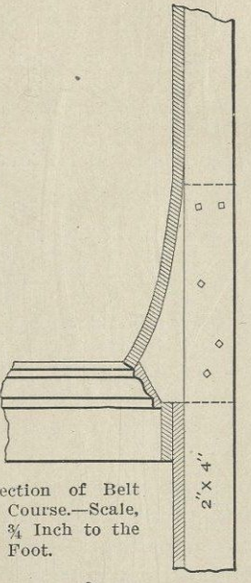
Detail of Exterior of Art Glass Window.—Scale, ⅜ Inch to the Foot.



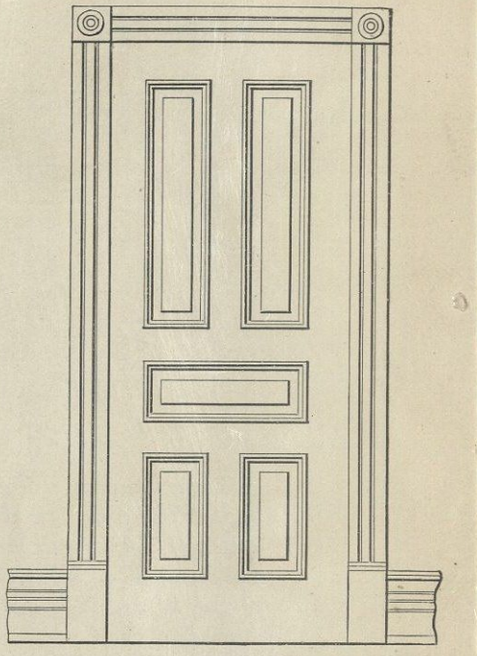
Detail of Finish in Kitchen and Second Story.—Scale, 1½ Inches to the Foot.



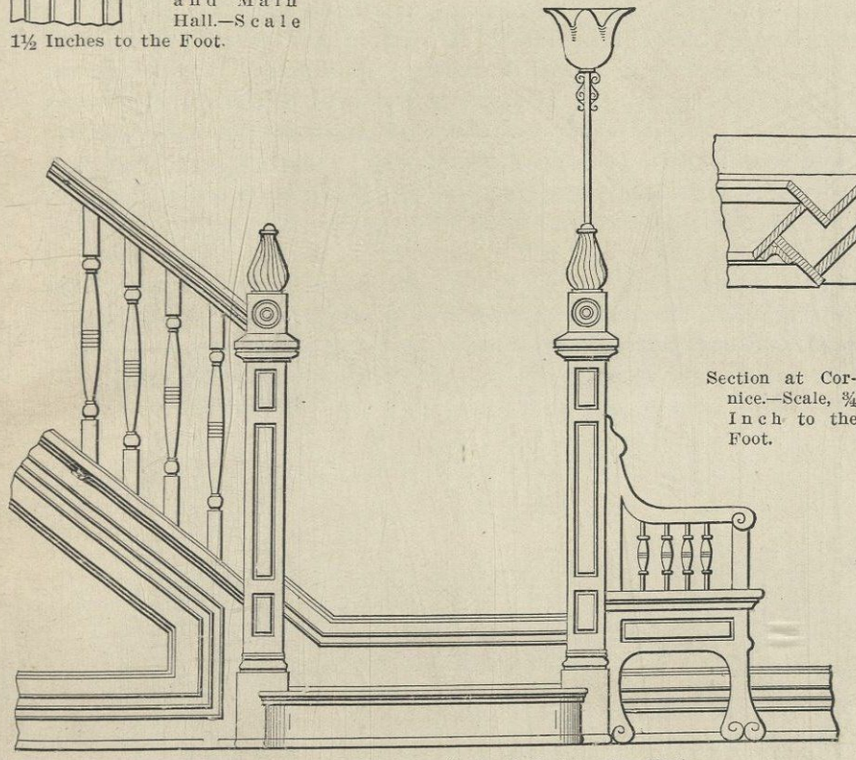
Section at Cornice.—Scale, ¾ Inch to the Foot.



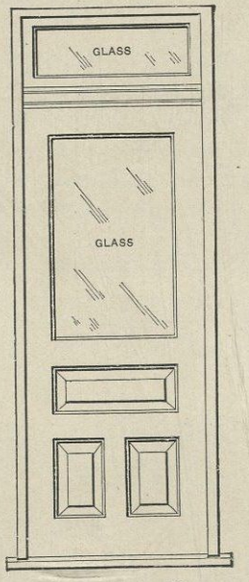
Section of Belt Course.—Scale, ¾ Inch to the Foot.



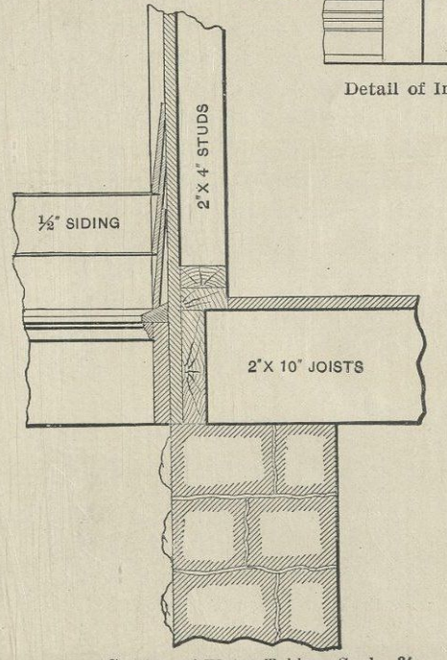
Detail of Inside Doors.—Scale, ½ Inch to the Foot.



Elevation of Main Stairway.—Scale, ½ Inch to the Foot.



Exterior of Front Door.—Scale, ⅜ Inch to the Foot.



Section of Water Table.—Scale, ¾ Inch to the Foot.

DESIGN NO. 24.

Design No. 25.

$1,500.

The half-tone picture presented on the following page represents the cottage of Edward Fox, erected in Washington, Iowa, from drawings prepared by W. S. Wylie of that place. It will be seen from the plans that the house has no cellar, although in some of the other dwellings which the architect has erected from the same floor plans, slightly modified, this feature has been provided. The house is covered with 10-inch ship lap, on which is laid a good quality of building paper, and this in turn is covered with narrow pine lap siding. The gables are covered with wide siding, cut in such a way as to imitate shingles. The roof is covered with clear white pine shingles. The floors of the cottage are laid with selected fence flooring, except the kitchen, where yellow pine is employed. The interior of the house is finished with soft pine pilaster casings and head and base blocks. The stairs are finished in red oak.

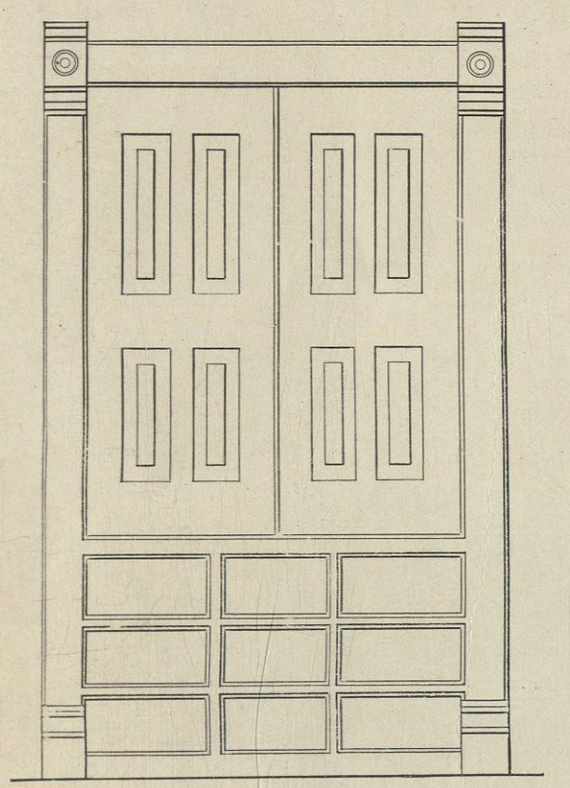
On the first floor are five rooms, so arranged as to utilize the space to advantage. The sitting room and parlor are connected by means of folding doors, although the opening may be concealed by *portières* if desired. Opening from the sitting room at the rear is a sleeping room and at the right the dining room. On the second floor are three sleeping rooms, each provided with a closet of ample size. In the smaller towns of the West less money is expended upon the outside of the house than is done in the East, although for the same money, it is claimed, as great convenience and fully as much room is secured. In the finish of houses standard patterns of moldings and casings are employed, such as are made by the mills and kept in stock by dealers handling material of this kind, so that there is less variation in the style of finish in different houses than would otherwise be the case.

The house here shown cost about $1,500, but the figure would vary somewhat with the locality and style of finish.

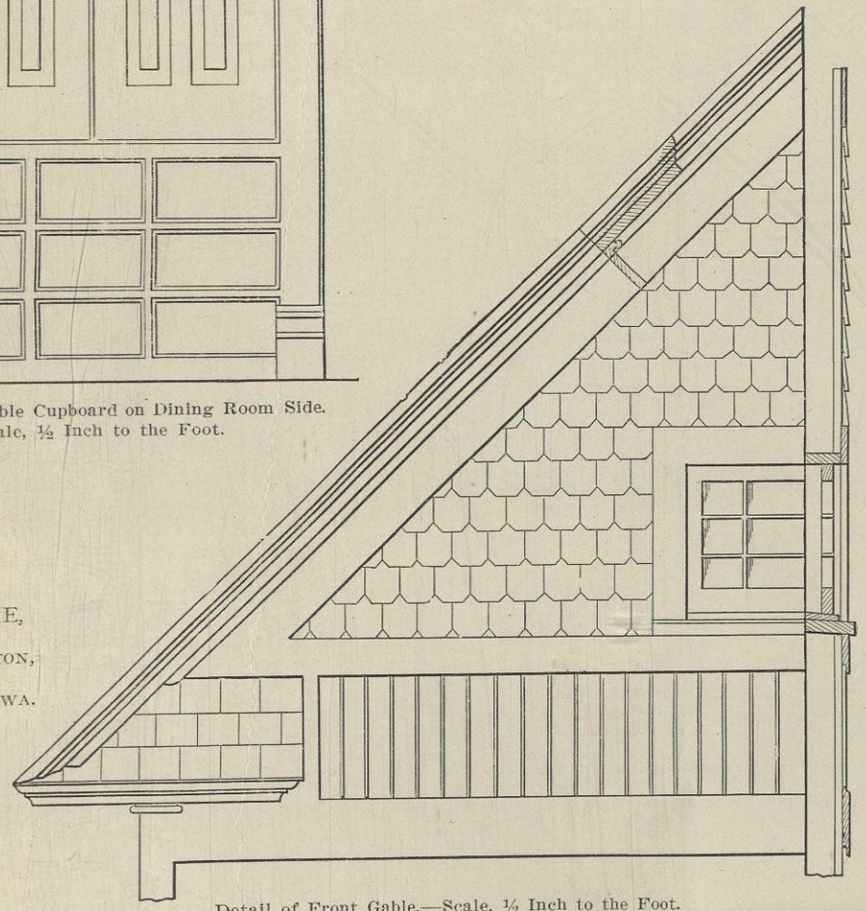
COTTAGE OF EDWARD FOX, AT WASHINGTON, IOWA.

ARCHITECT: W. S. WYLIE.

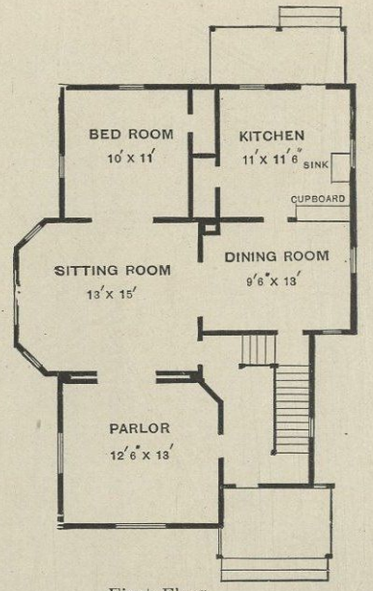
DESIGN
NO. 25.



Detail of Double Cupboard on Dining Room Side.
—Scale, ½ Inch to the Foot.

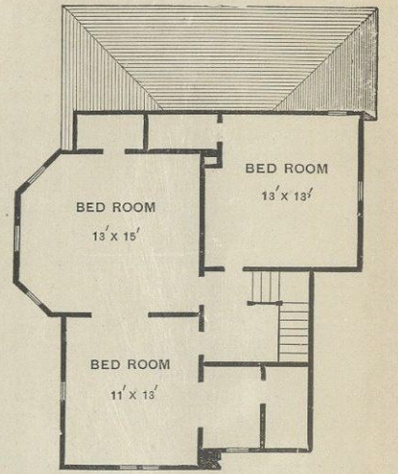


Detail of Front Gable.—Scale, ½ Inch to the Foot.

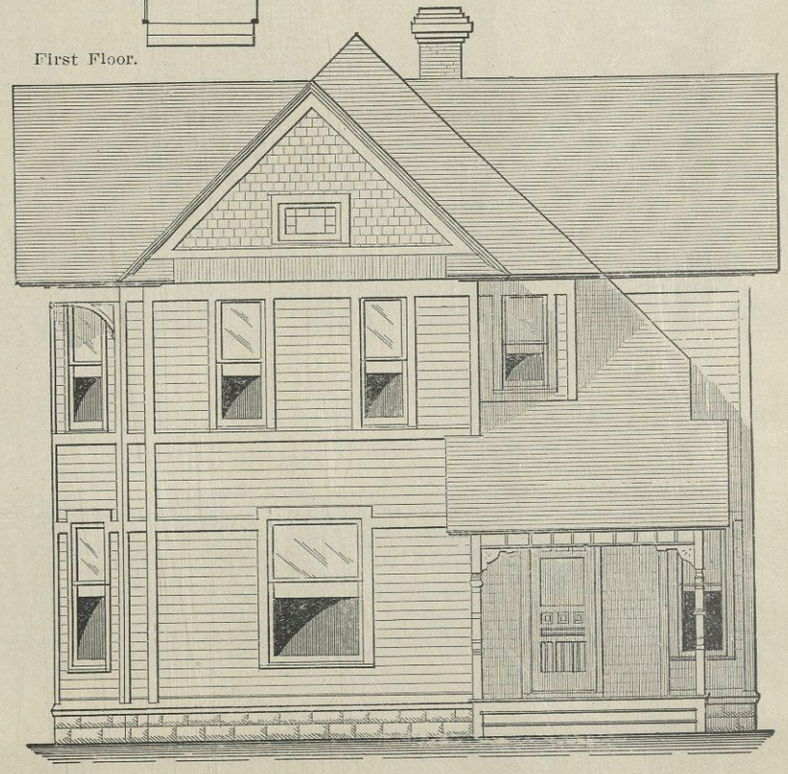


First Floor.

FLOOR PLANS.—Scale, 1-16 Inch to the Foot.



Second Floor.



Front Elevation.—Scale, ⅛ Inch to the Foot.

ARCHITECT:

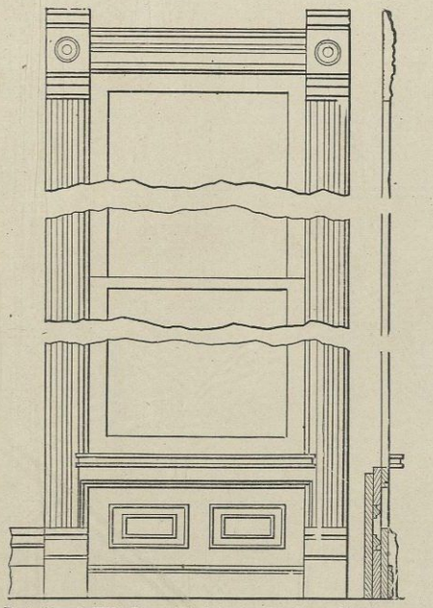
W. S. WYLIE,

WASHINGTON,

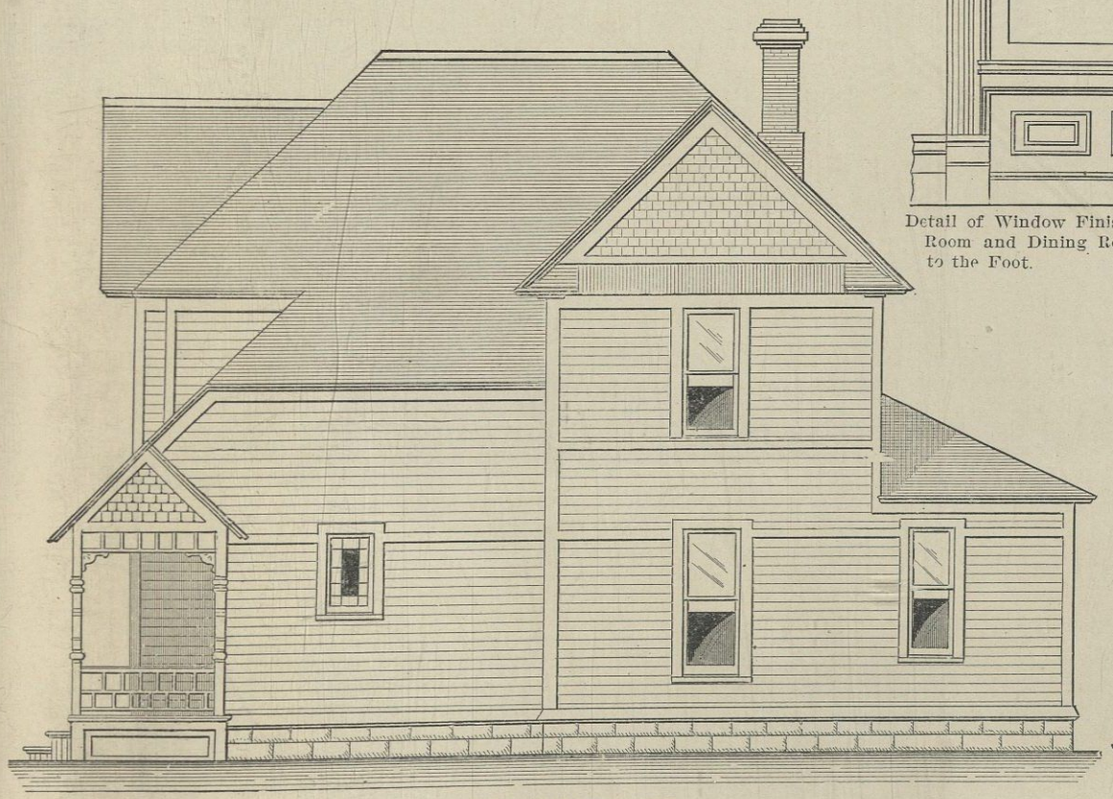
IOWA.

COST,
$1,500.

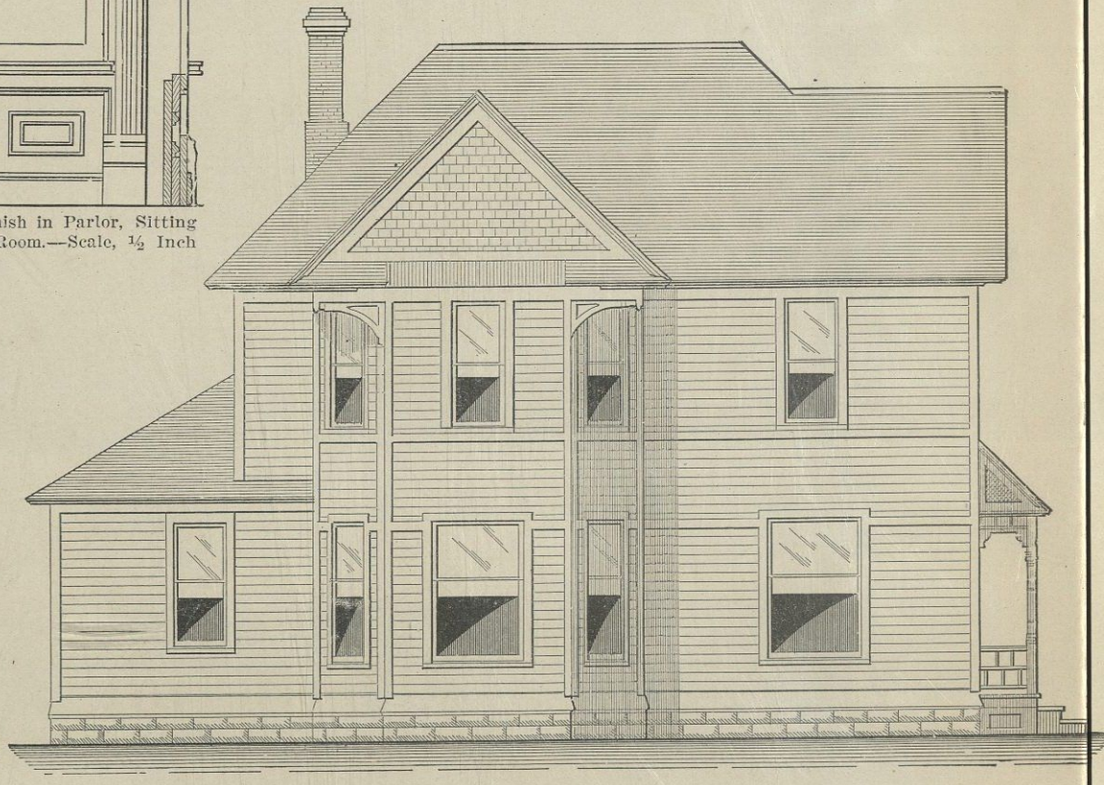
DESIGN
No. 25.



Detail of Window Finish in Parlor, Sitting Room and Dining Room.—Scale, ½ Inch to the Foot.



Side (Right) Elevation.



Side (Left) Elevation.

Scale, ⅛ Inch to the Foot.